

Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
Leydig, Voit & Mayer, Ltd.  
202-737-6770

## Fig.1

10 20 30 40 50  
AUCACUCUCUUAAAUCACUACUCACAGUAACCUAACUCCUGCCACAAAUGUACAGGAU

70 80 90 100 110  
AACUCCUGUCUUGCAUUGCACUAAGUCUUGCACUUGUCACAAACAGUGCACCUACUUC,  
ACGTGATT~~CAGAACGT~~GAACAGTGTGTC  
77-91 92-106

130 140 150 160 170  
GUUCUACAAAGAAAACACAGCUACAAACUGGAGCAUUUA~~CUGCUGGAAUUUACAGAUGAU~~

190 200 210 220 230  
UGAAUGGAAUAAAUACAAAGAAUCCAAACUCACCGAGGAUGCUACAUUUAAGU  
ATGTTCTT~~AGGGTTT~~GAGTGGT~~CTACGAG~~GTAAATTCAA  
198-212 213-227 228-242

250 260 270 280 290  
ACAUGCCCAAGAAGGCCACAGAACUGAAACAUUCAGUGCUAGAGAAGAACUAA  
TGTACGGGTTCTT~~CCGG~~TCTT~~GAGT~~  
243-257 287-301

310 320 330 340 350  
CUCUGGAGGAAGUGCUAAAUUAGCUAAAGCAAAACUUUCACUUAAGACCCAGGGA  
GAGACCT~~CTT~~CACGA  
302-316 342-356

370 380 390 400 410  
UAAUCAGCAAAUCAACGUAAUAGUUCUGGAACUAAGGGAU~~CUGAAACAAACAUUCAU~~  
AT~~AGTCGTTA~~  
357-371

430 440 450 460 470  
GUGAAUAUGCUGAUGAGACAGCAACCAUUGUAGAAUUCUGAACAGAUGGAUUACCUU

490 500 510 520 530  
GUCAAAGCAUCAUCUAAACACUAACUUGUAAAUUAAGUGCUUCCCACUAAAACAUUA  
GGCCUUCUAUUUAUUAAAUAUUAAAUUUAUUUAU~~UUGUUGAAUGUAUGGUUUGCUA~~

550 560 570 580 590 600  
CCUAUUGUAACUAUUAAUCUUAACUAAAACUAUAAAUAUGGAUCUUUUUAUGAUUCUUL

610 620 630 640 650 660  
UUGUAAGCCC~~UAGGGCUCUAAA~~UUGGUUUCACUUUUUAUCCAAAAAAUAAAUAUUUAUU

670 680 690 700 710 720  
UGUUGAAUGUUAAAUAUGUAUCUAUGUAGAU~~UGGUAGUAAAACUAUUUAUAAAUAUU~~

730 740 750 760 770 780  
AUAAAUAUAAAAAAAAAAC

## Fig.2

10 20 30 40 50 60  
GAUCGUUAGCUUCUCCUGAUAAACUAUUGCCUCACAUUGUCACUGCAAAUCGACACCUA

70 80 90 100 110 120  
UUAAUGGGUCUACCUCCAACUGCUUCCCCCUCUGUUUCUCCUGCUAGCAUGUGCCGGC  
GAGTGGAGGGTTGAC|GAAGGGGGAGACAAG|CG  
70-84 85-99

130 140 150 160 170 180  
AACUUUGGUCCACGGACACAAGUGCGAUUAUCACCUUACAGGAGAUCAUAAAACUUUGAAC  
TTGAAACAGGTGC|CTGTGTTCACGCTAT|ACTTG  
119-133 134-148

190 200 210 220 230 240  
AGCCUCACAGAGCAGAAGACACUGUGCAGGAGUUGACCGUAACAGACAUUUUGCUGCC  
TCGGAGTGTC|TCGTCTTCTGAGACA  
176-190 191-205

250 260 270 280 290 300  
UCCAAGAACACAACUGAGAAGGAAACCUUCUGCAGGGCUGCGACUGUGCUCCGGCAGUUC  
TGGAAAGACGTCCCGA|CGCTGACACGAGGCC  
265-279 280-294

310 320 330 340 350 360  
UACAGCCACCAUGAGAAGGACACUCGCUGCCUGGGUGCGACUGCACAGCAGUUCCACAGG

370 380 390 400 410 420  
CACAAGCAGCUGAUCCGAUUCCUGAAACGGCUCGACAGGAACCUUCUGGGGCCUGGGGGC  
GCTAAGGACTTGCC|GAGCTGTCCTGGAG  
376-390 391-405

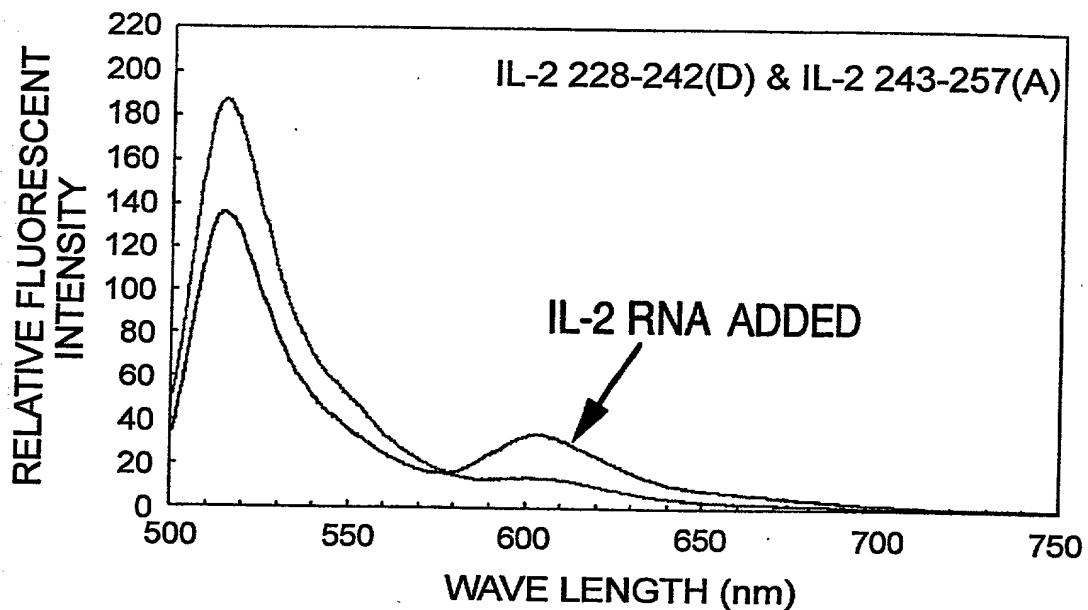
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490 500 510 520 530 540  
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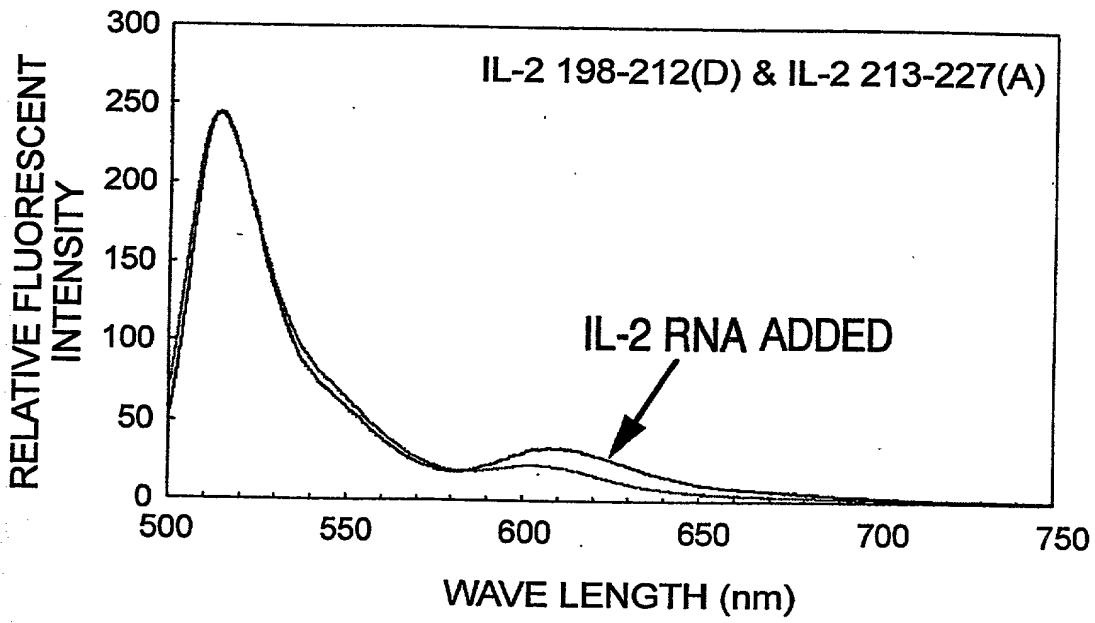
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610  
UUAUAUAGAAUCUAAAA

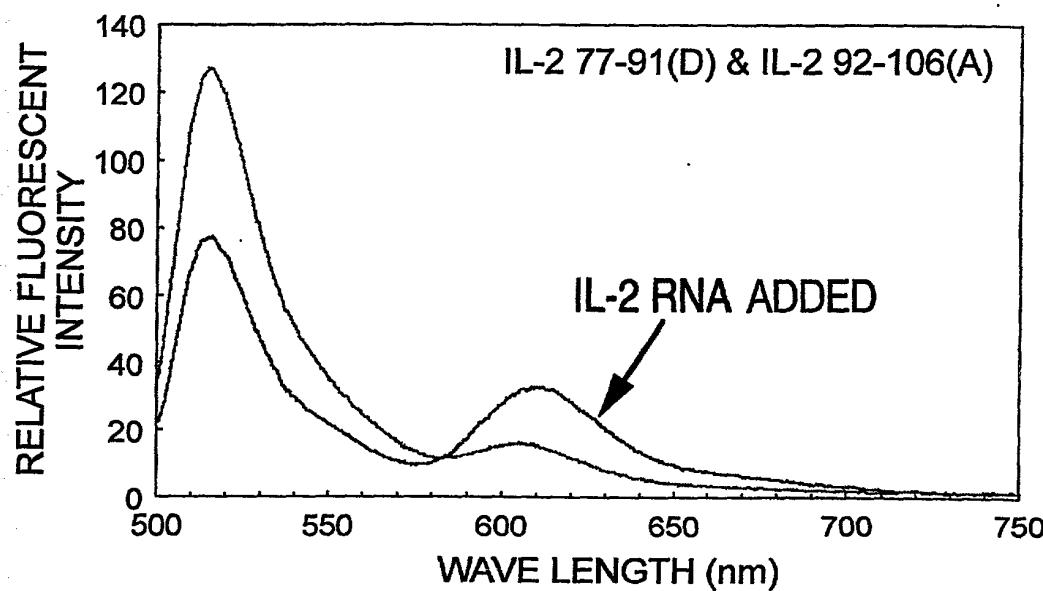
**Fig.3**



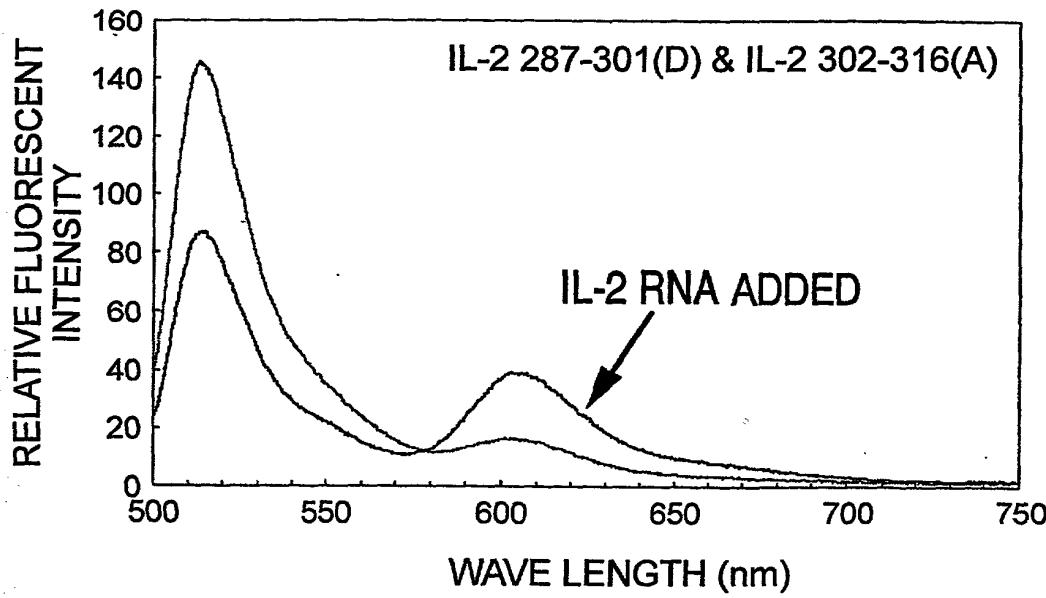
**Fig.4**



**Fig.5**



**Fig.6**



Title: Method For Selectively Separating Live Cells Expressing A Specific Gene

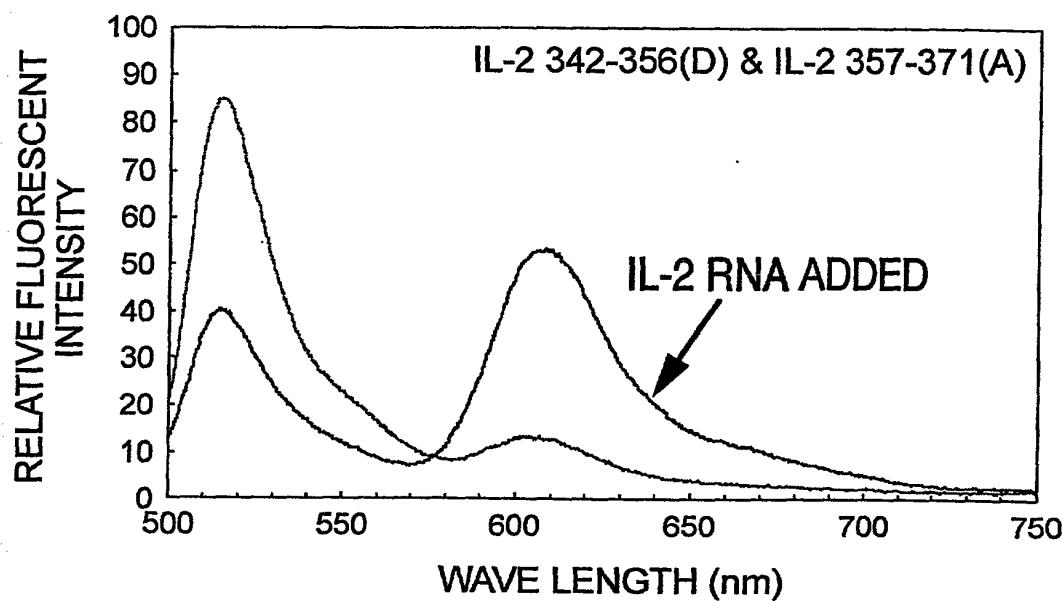
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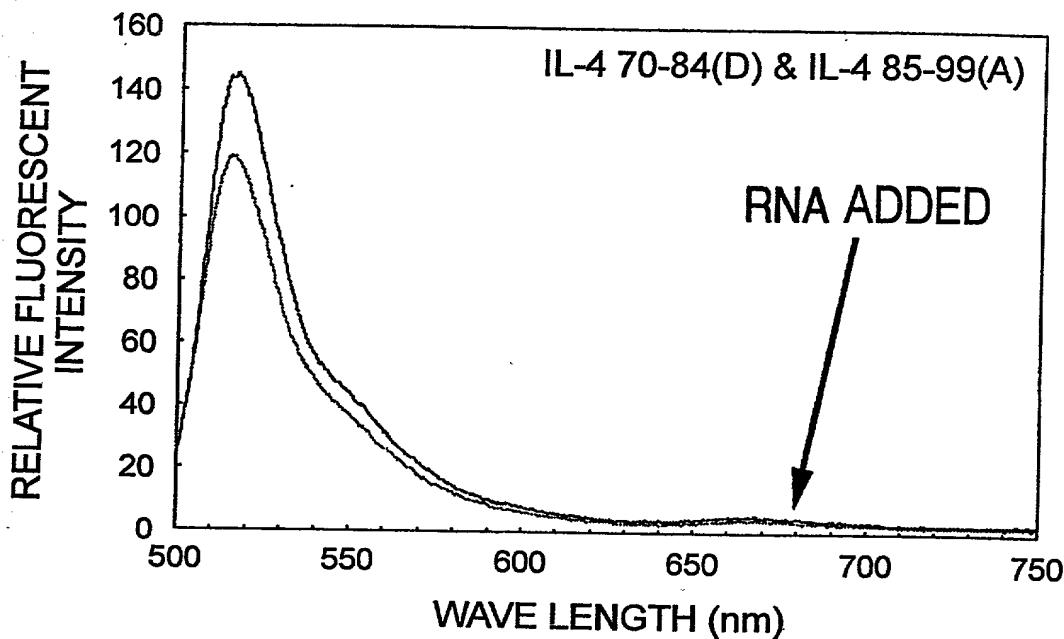
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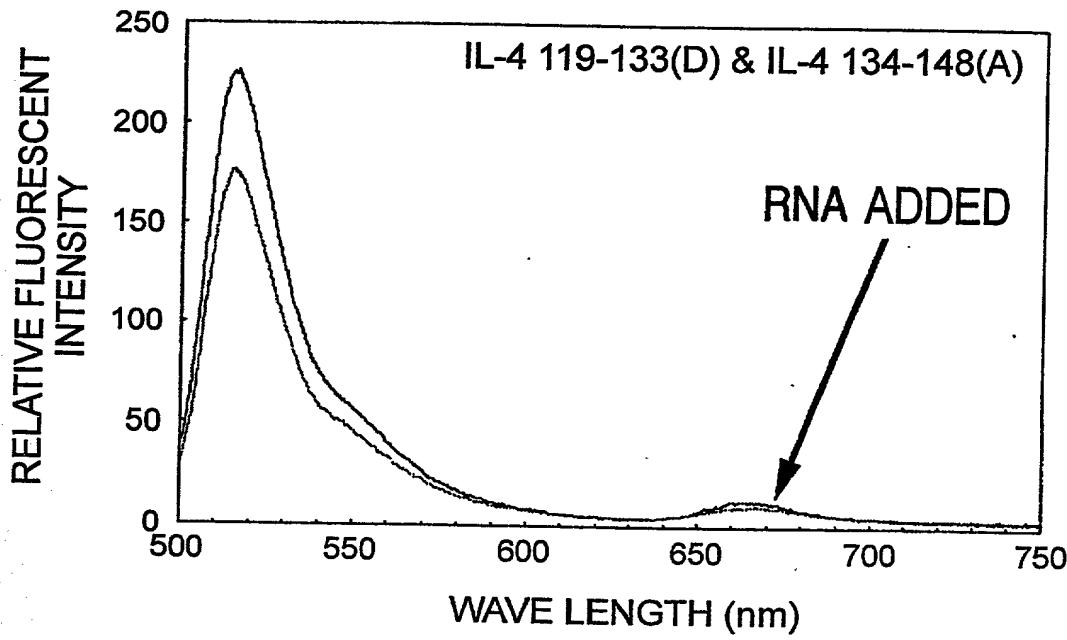
**Fig.7**



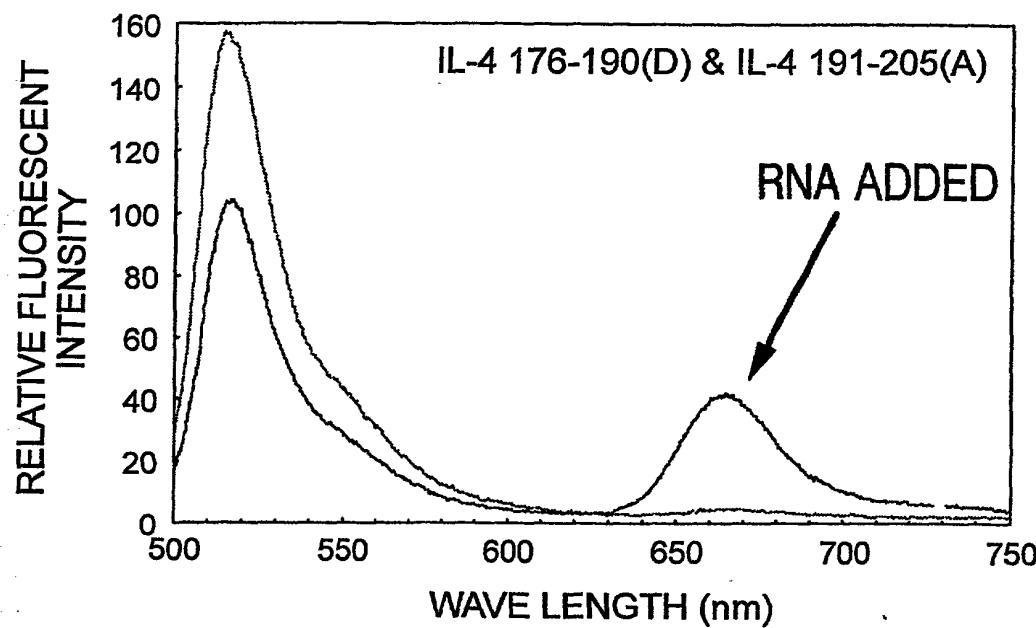
**Fig.8**



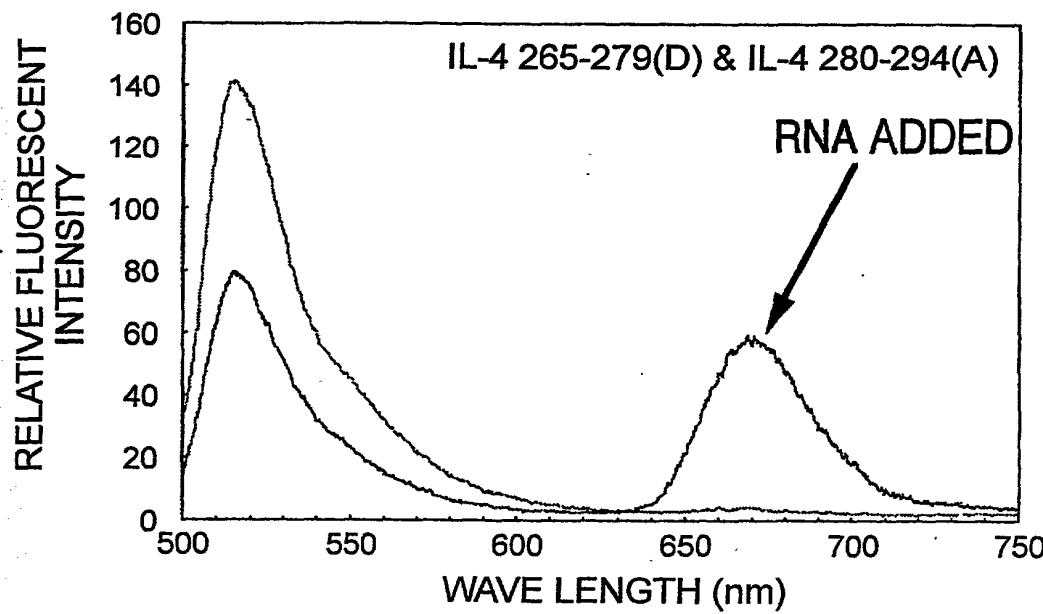
**Fig.9**



**Fig.10**

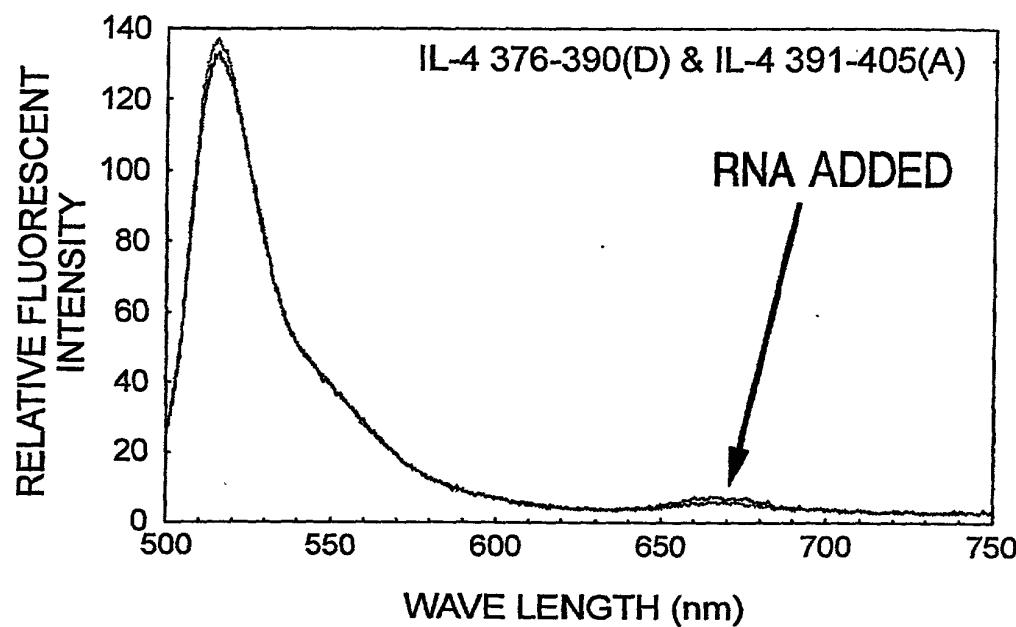


**Fig.11**



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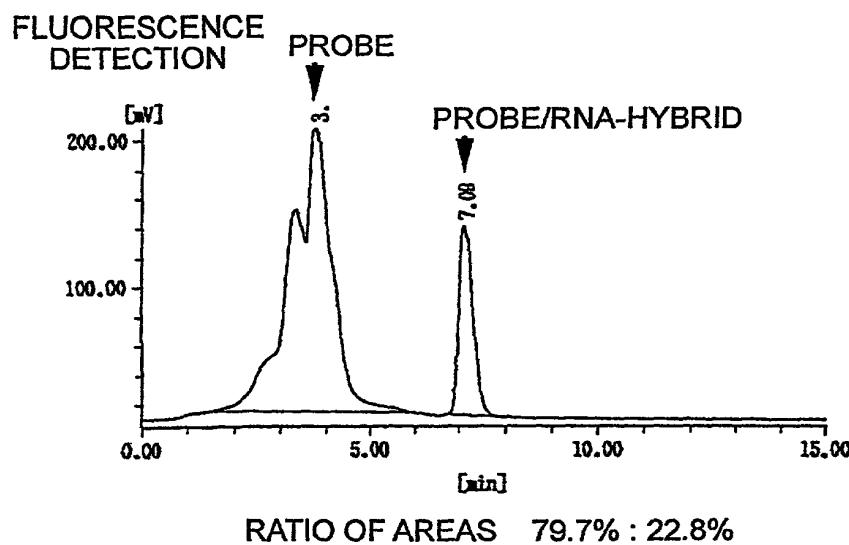
**Fig.12**



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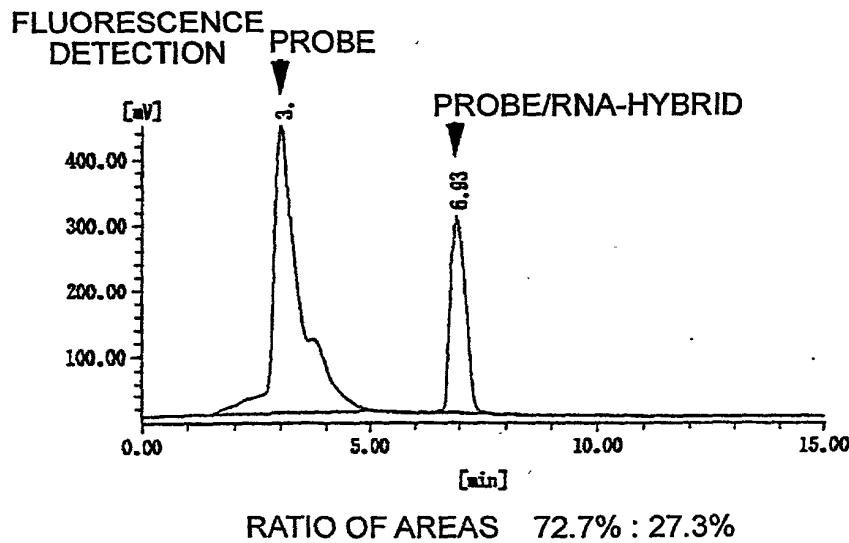
**Fig.13**

IL-2 342-356



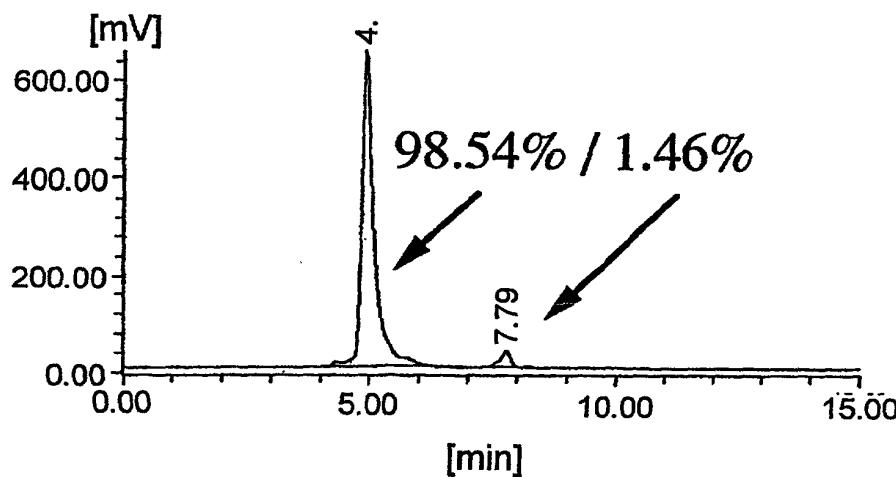
**Fig.14**

IL-2 357-371



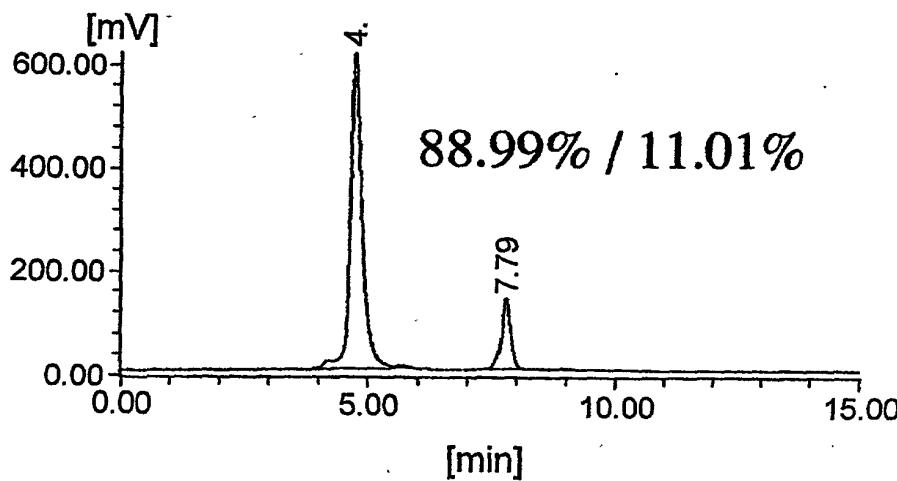
**Fig.15**

IL-4 119-133



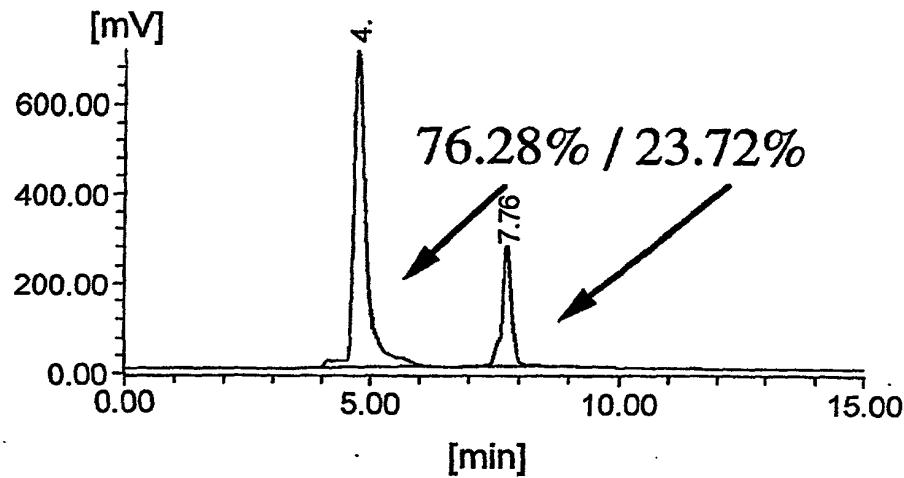
**Fig.16**

IL-4 134-148



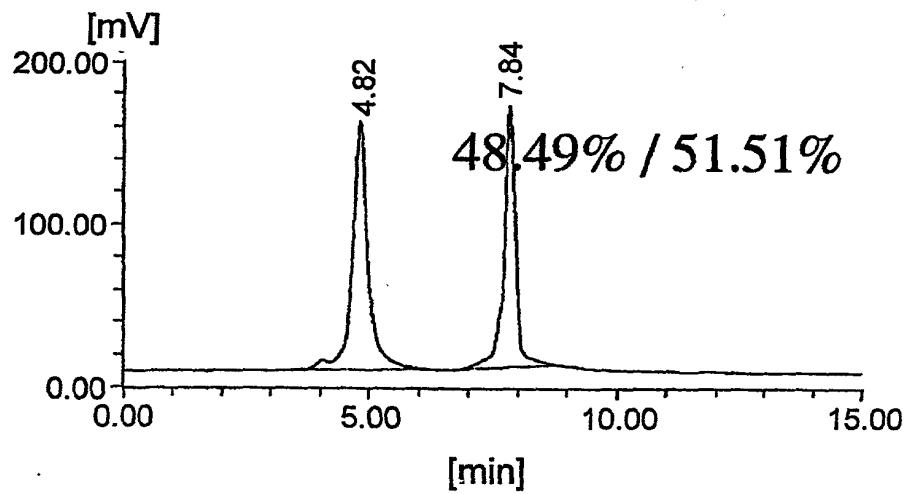
**Fig.17**

IL-4 265-279

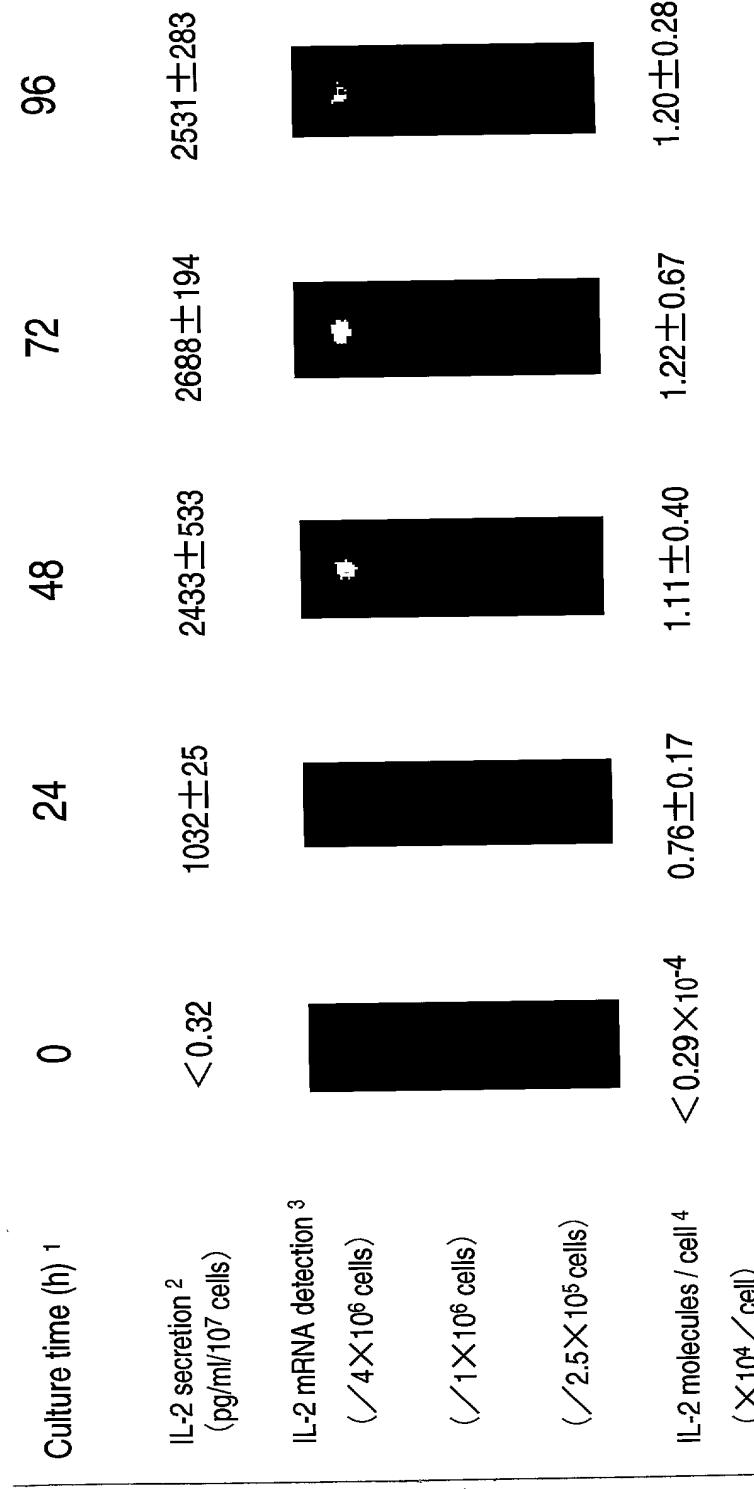


**Fig.18**

IL-4 280-294



## Fig. 19

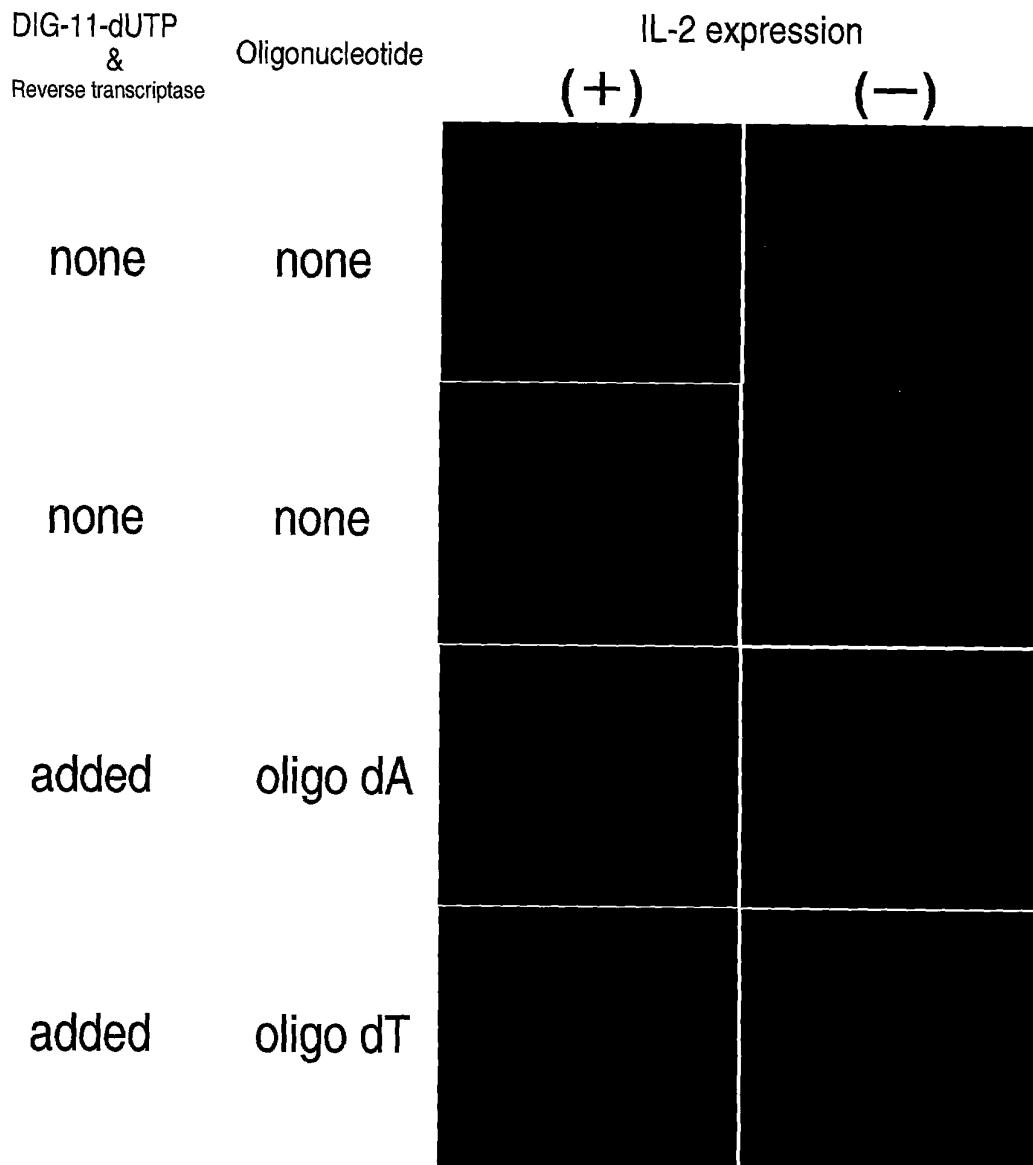


<sup>1</sup> Time after adding 10 nM PMA, 0.5 mg/ml anti-human CD3 antibody and anti-human CD28 antibody to cultured Jurkat E6-1 cells

<sup>2</sup> The concentration of IL-2 in the culture supernatants measured by ELISA using anti-human IL-2 antibody

<sup>3, 4</sup> Determination of cellular IL-2 expression level by dot blotting using RNA probe complementary to human IL-2 mRNA

**Fig.20**



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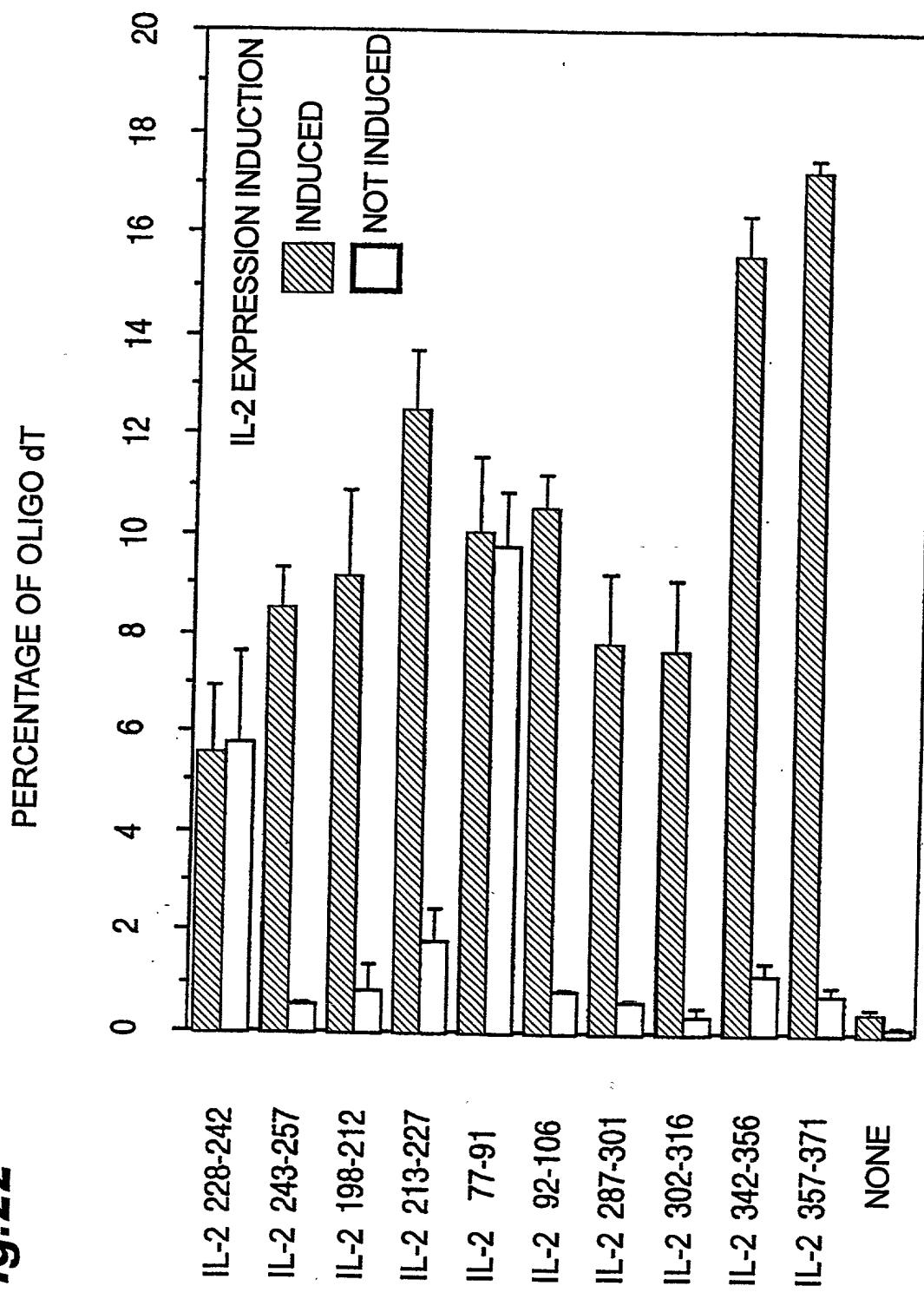
## Fig.21

PROBE	IL-2 EXPRESSION	
	(+)	(-)
IL-2 228-242(D)		
IL-2 243-257(A)		
IL-2 198-212(D)		
IL-2 213-227(A)		
IL-2 77-91(D)		
IL-2 92-106(A)		
IL-2 287-301(D)		
IL-2 302-316(A)		
IL-2 342-356(D)		
IL-2 357-371(A)		
NONE		

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**Fig. 22**



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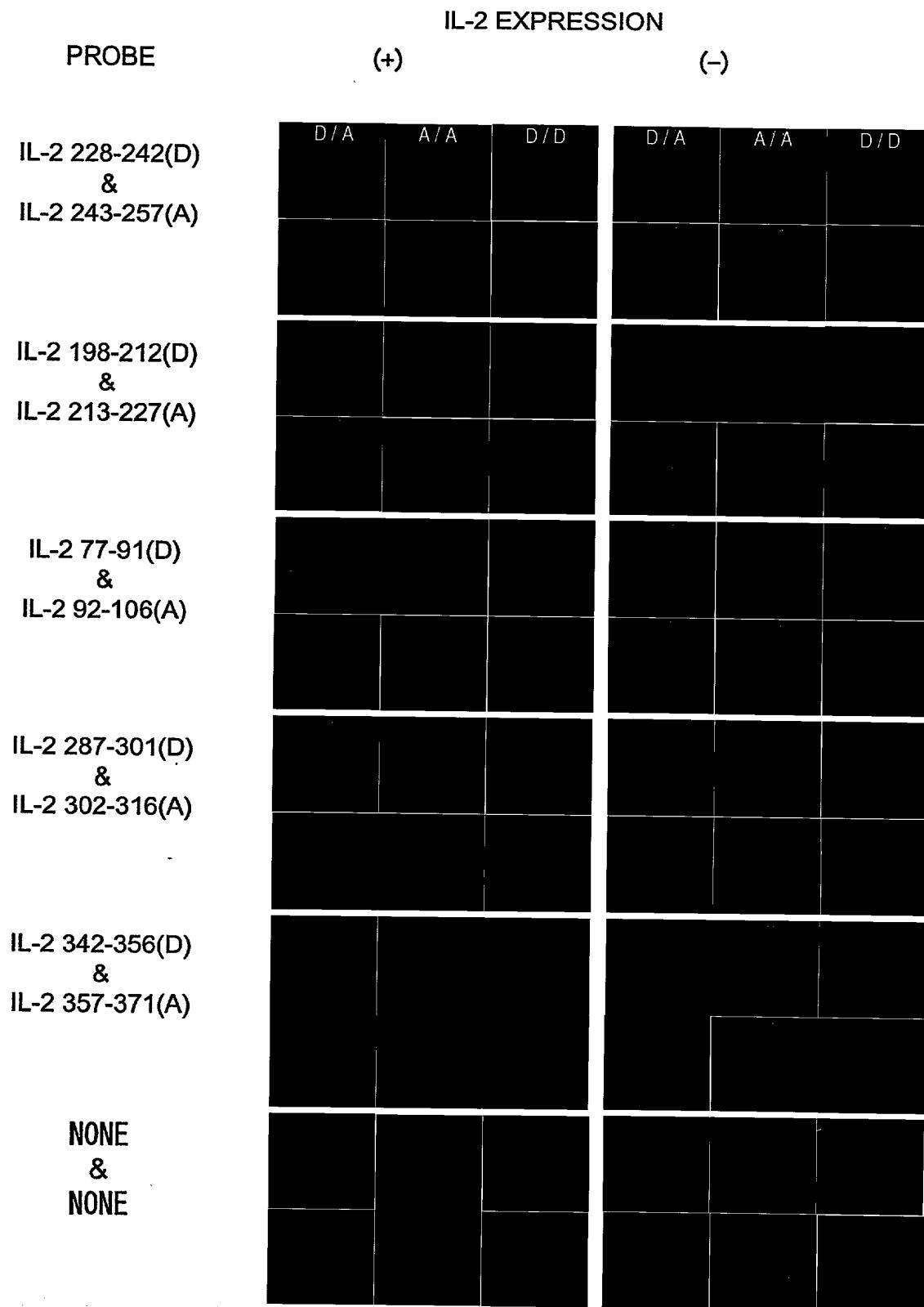
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## Fig.23



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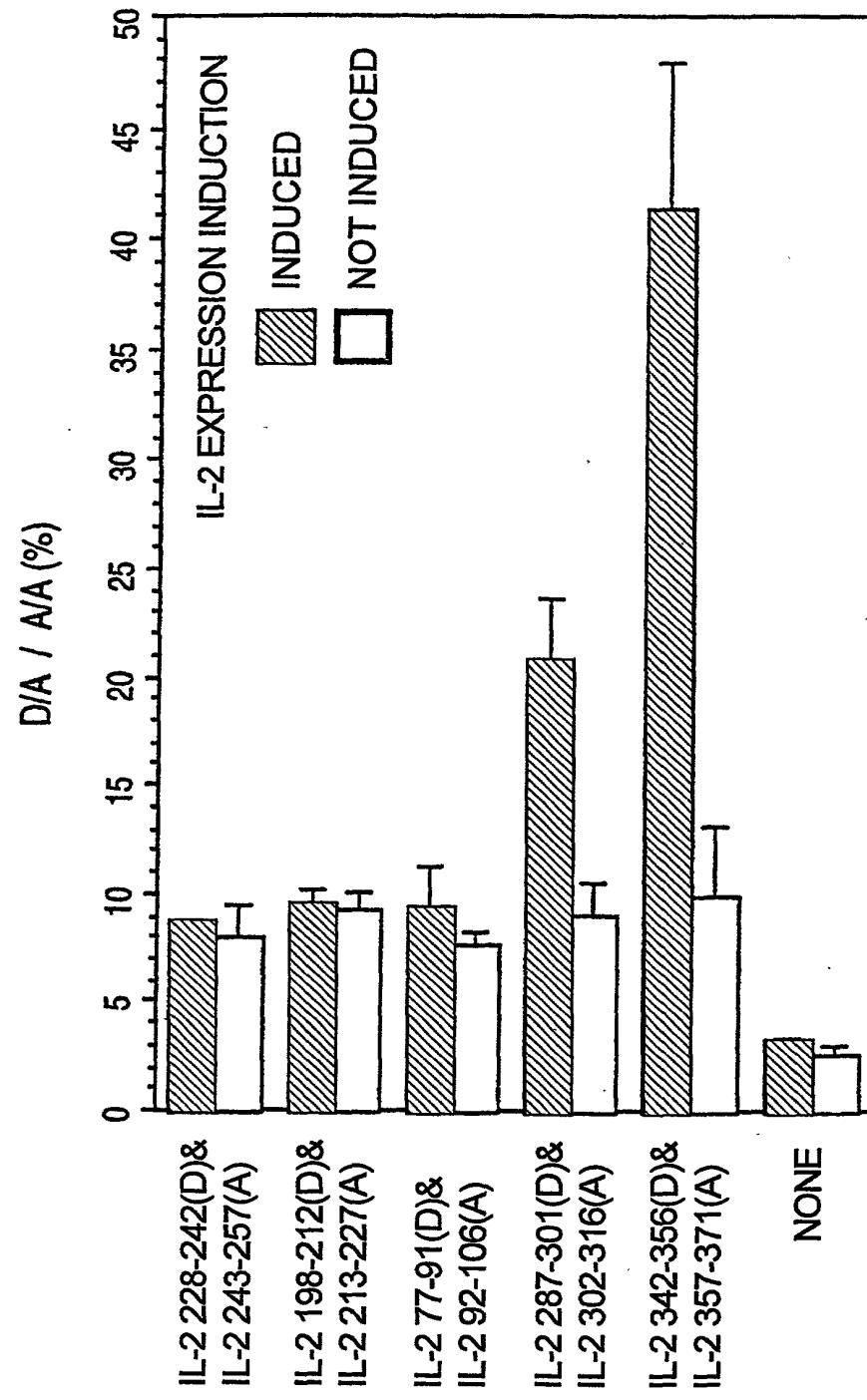
Inventors: ISHIBASHI et al.

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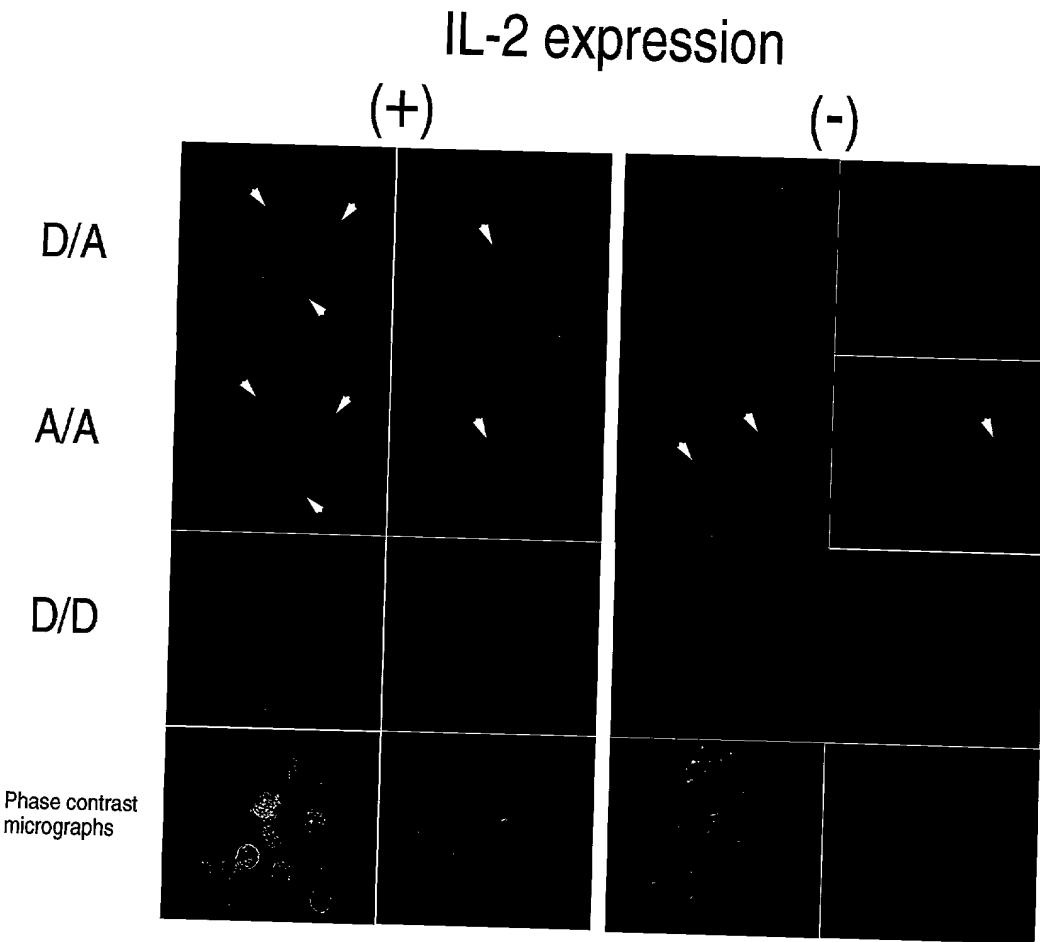
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**Fig. 24**



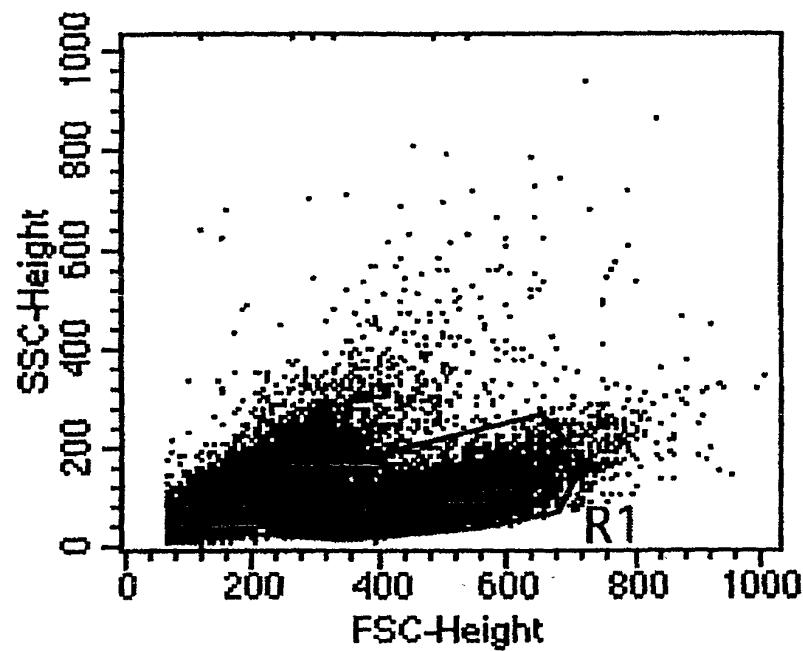
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**Fig. 25**

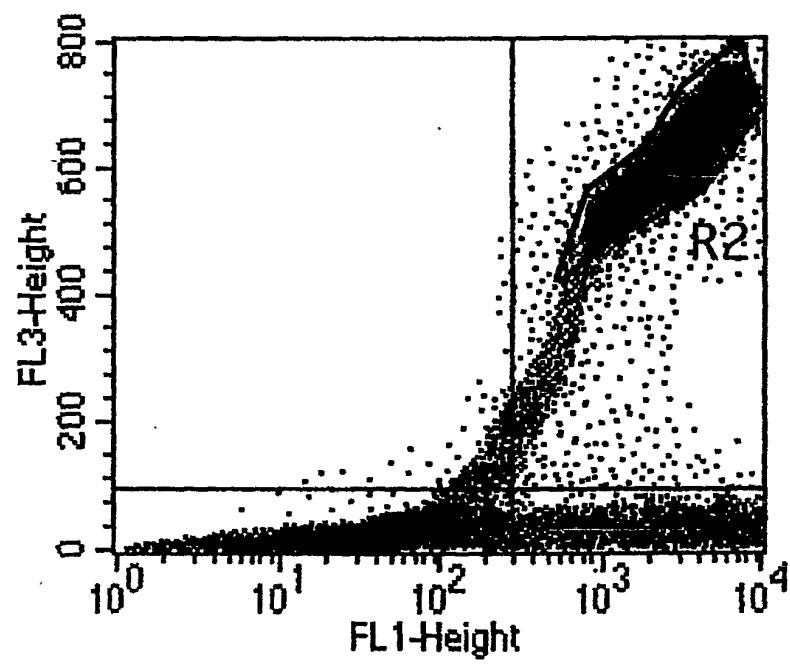


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**Fig.26**

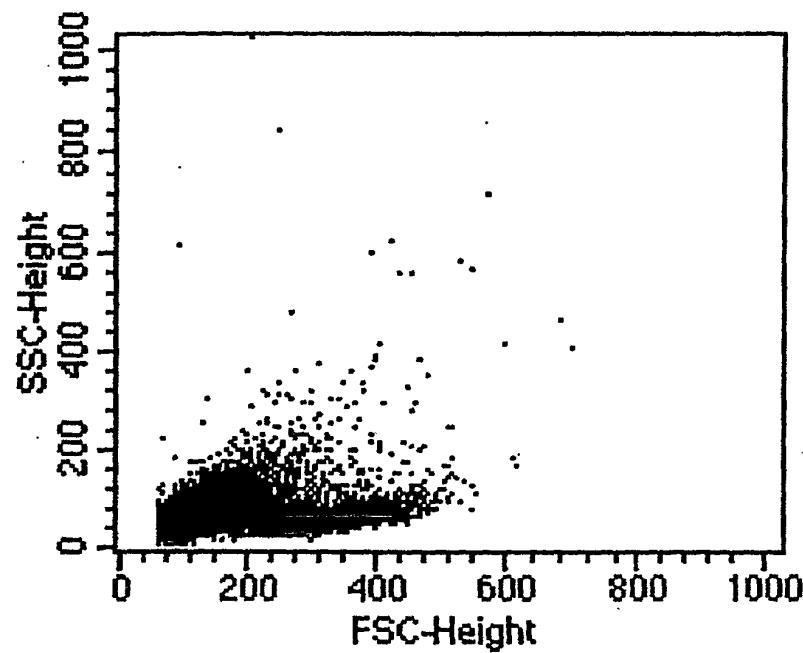


**Fig.27**

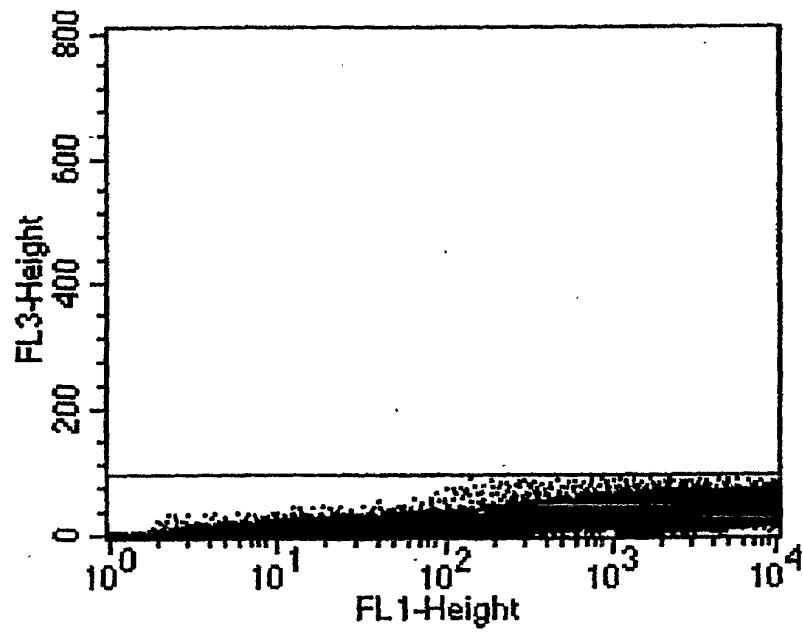


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**Fig.28**

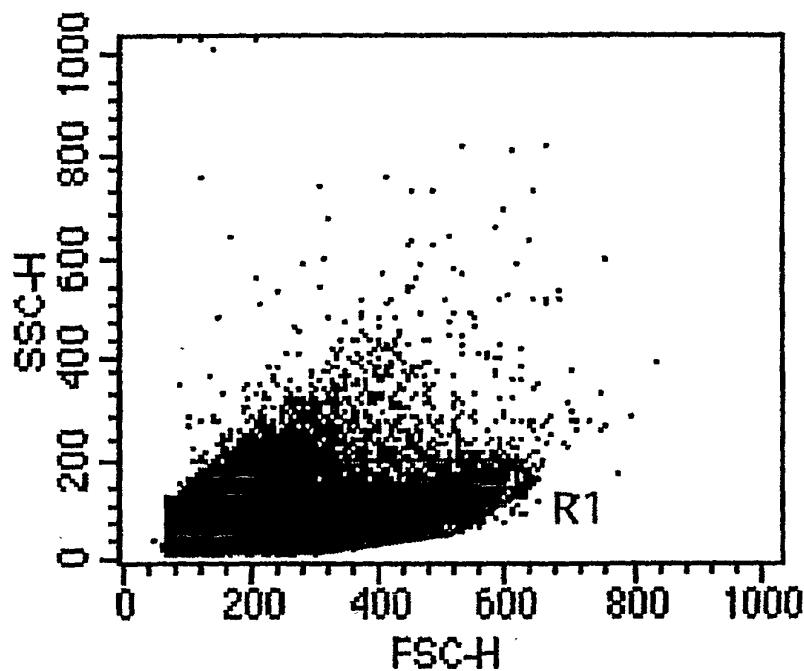


**Fig.29**

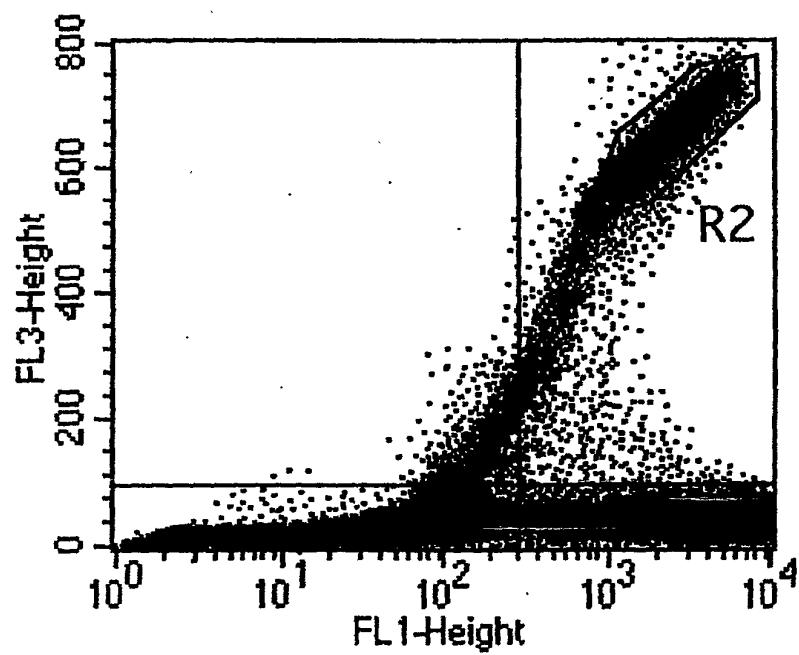


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**Fig.30**

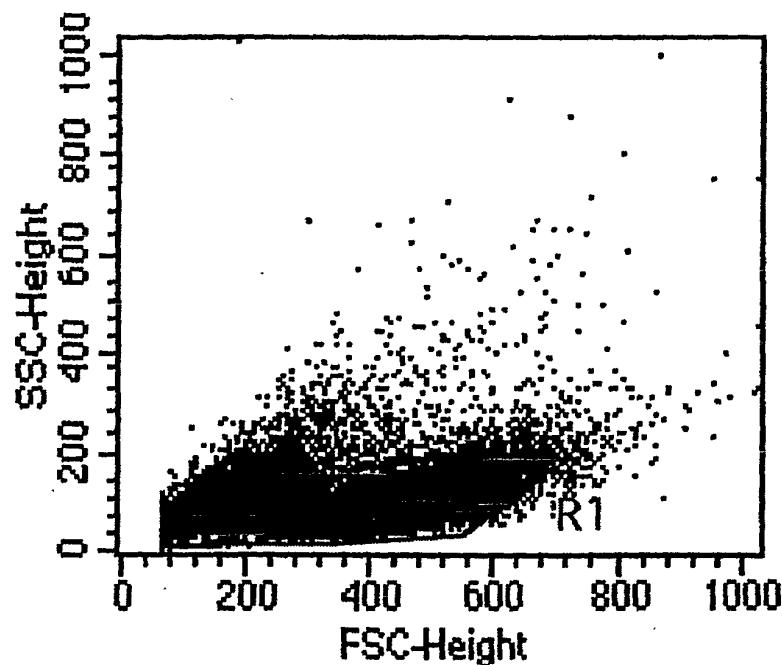


**Fig.31**

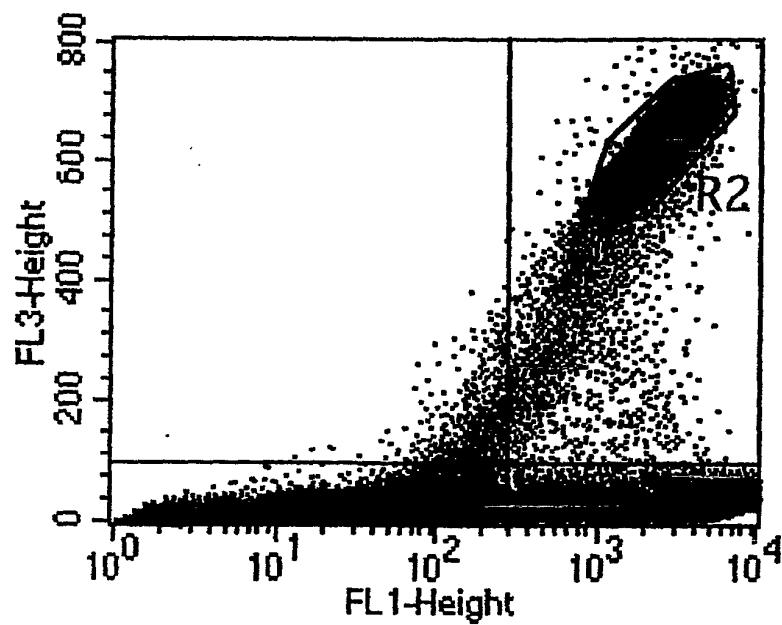


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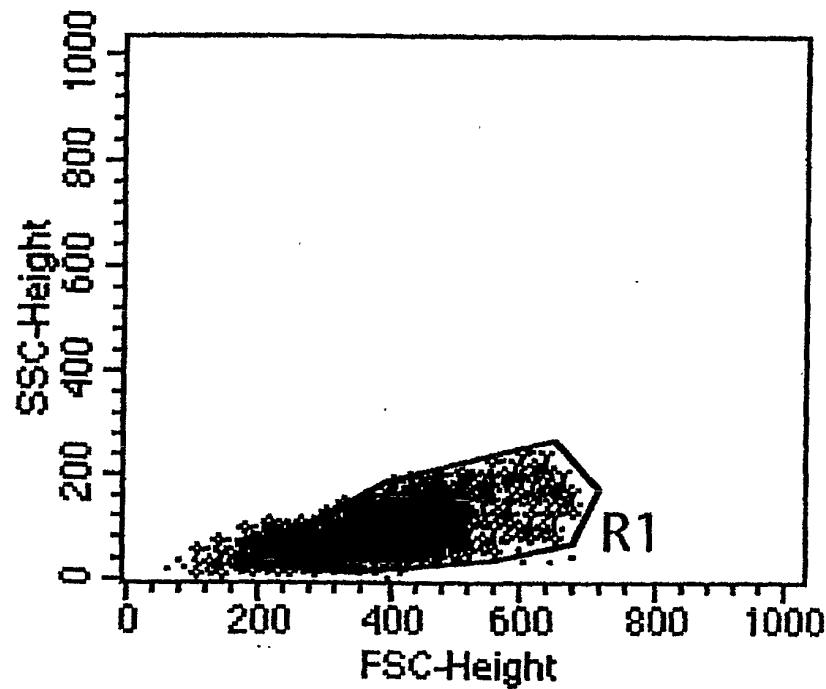
**Fig.32**



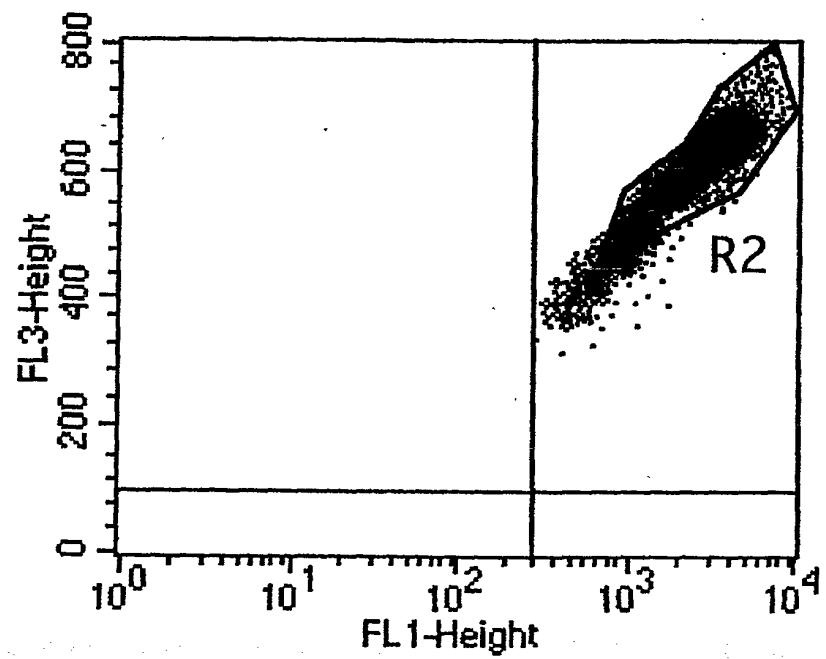
**Fig.33**



**Fig.34**

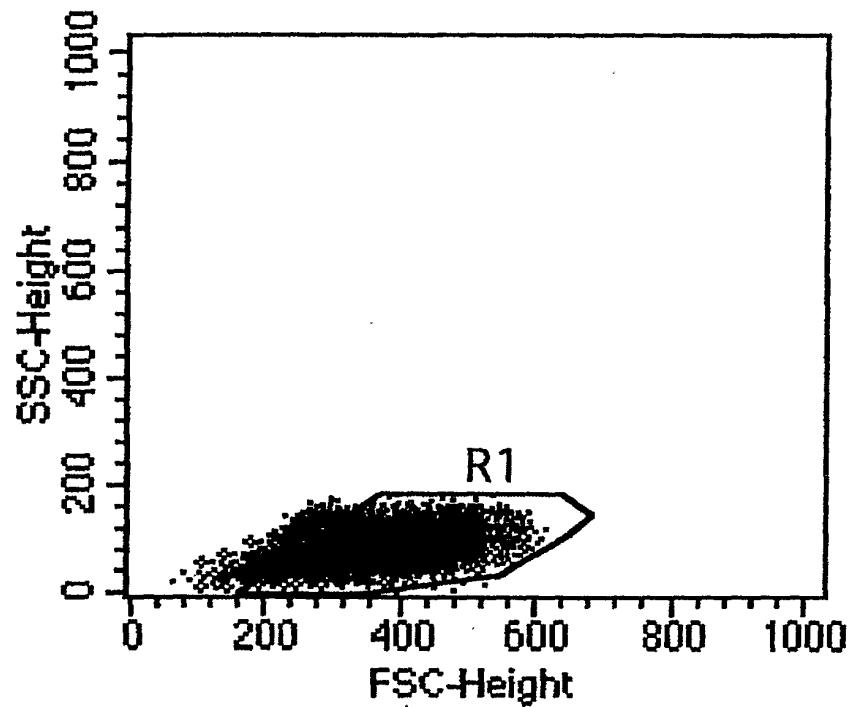


**Fig.35**

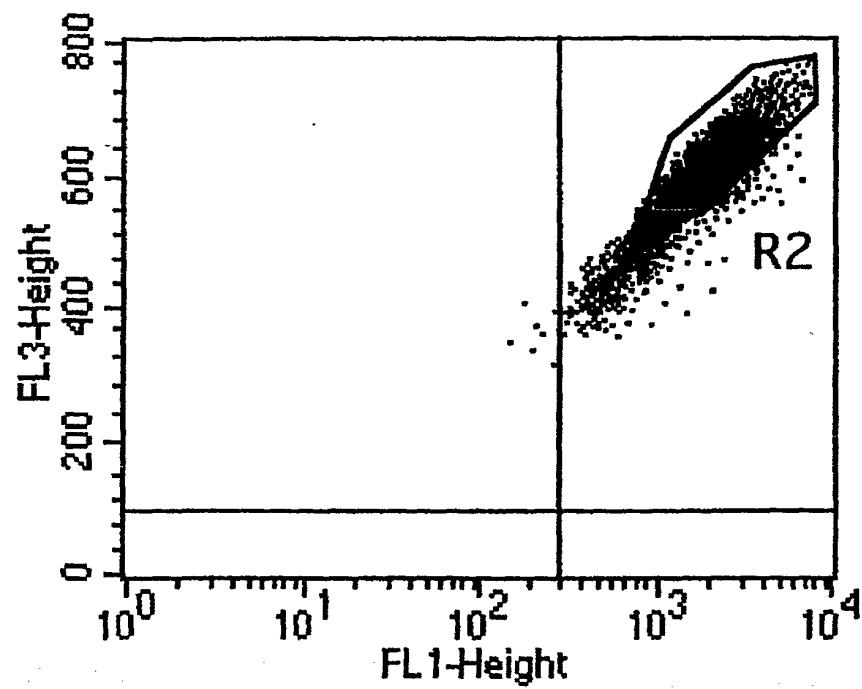


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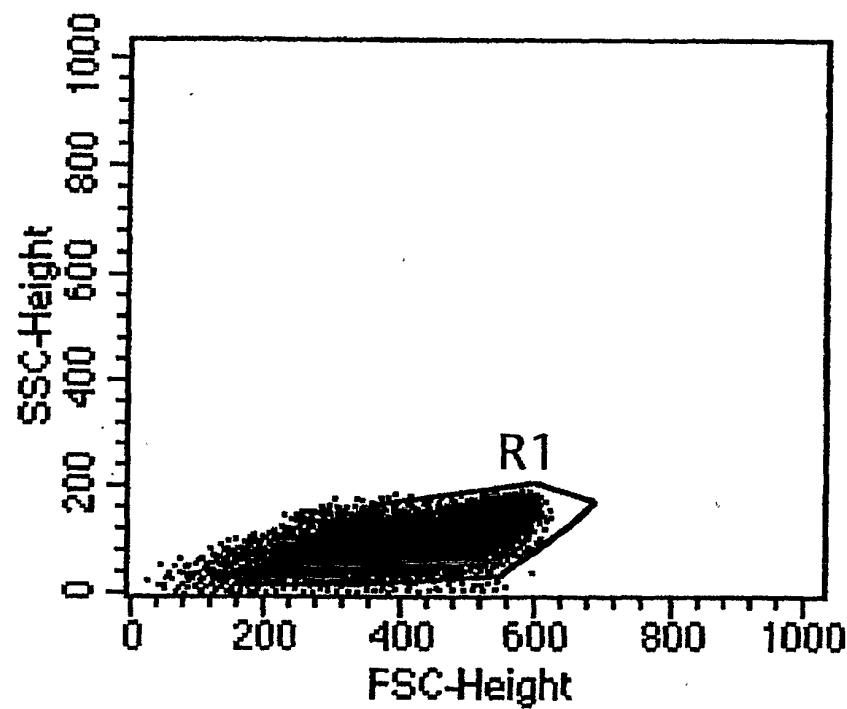
**Fig.36**



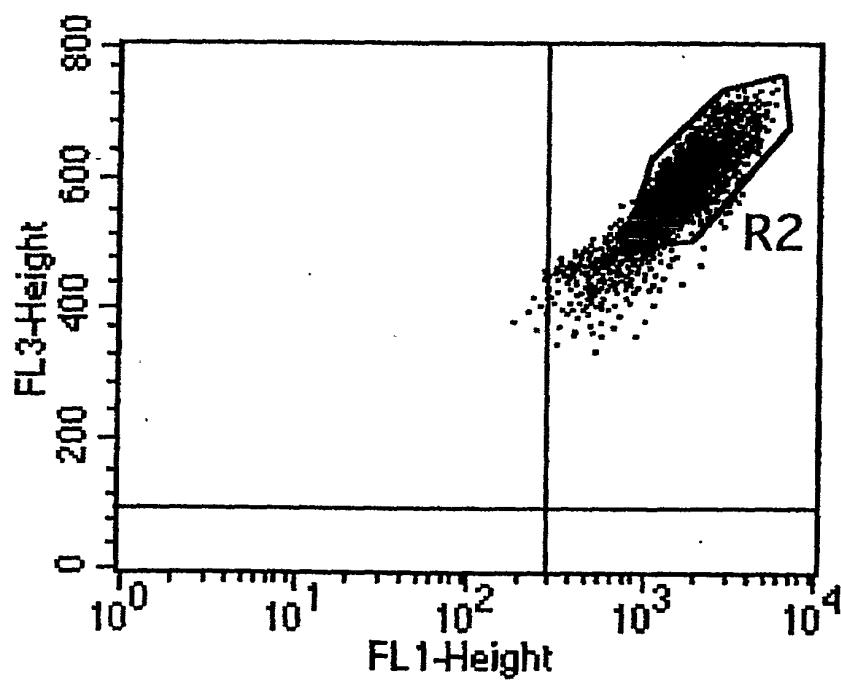
**Fig.37**



**Fig.38**



**Fig.39**



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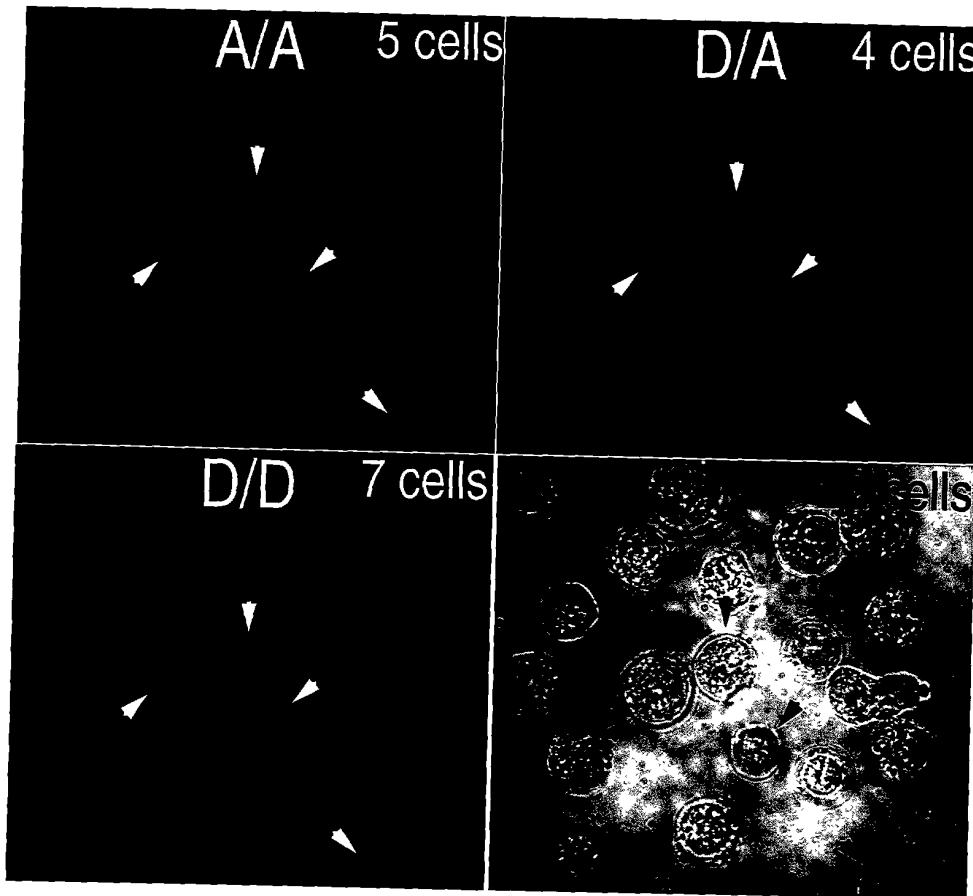
Inventors: ISHIBASHI et al.

Atty Docket No.: 400684/SOEI

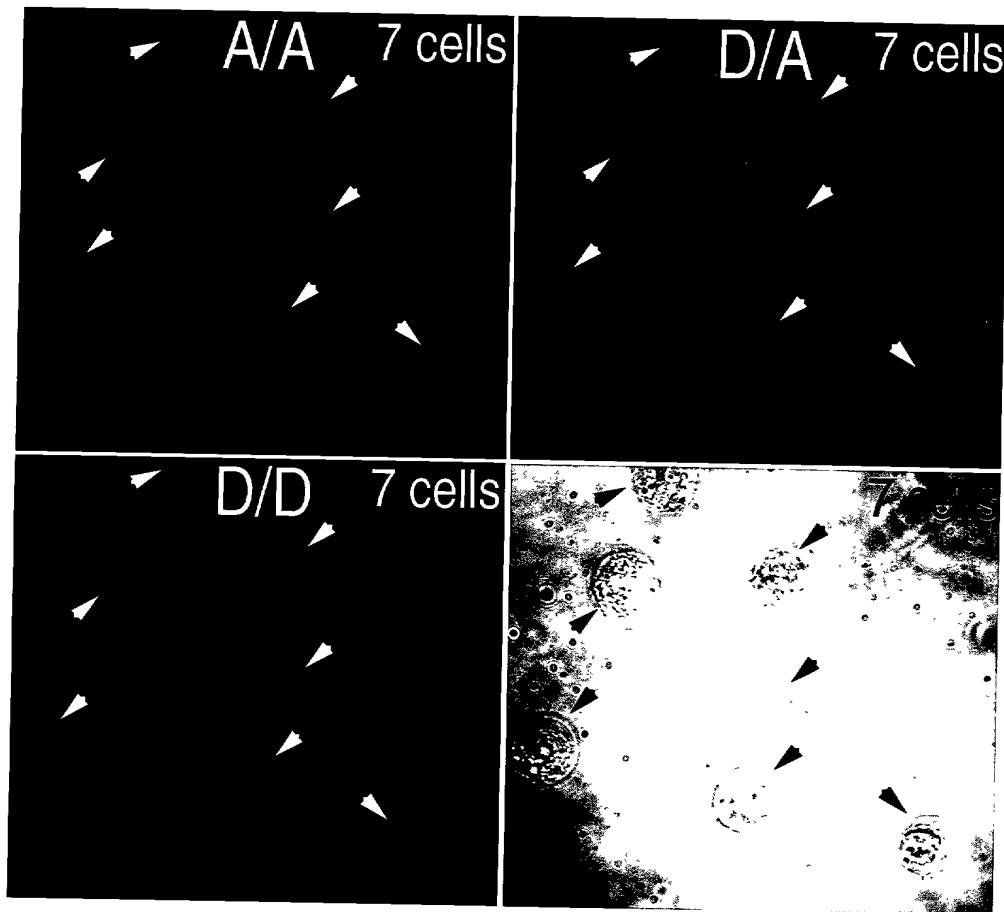
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**Fig.40**



**Fig.41**



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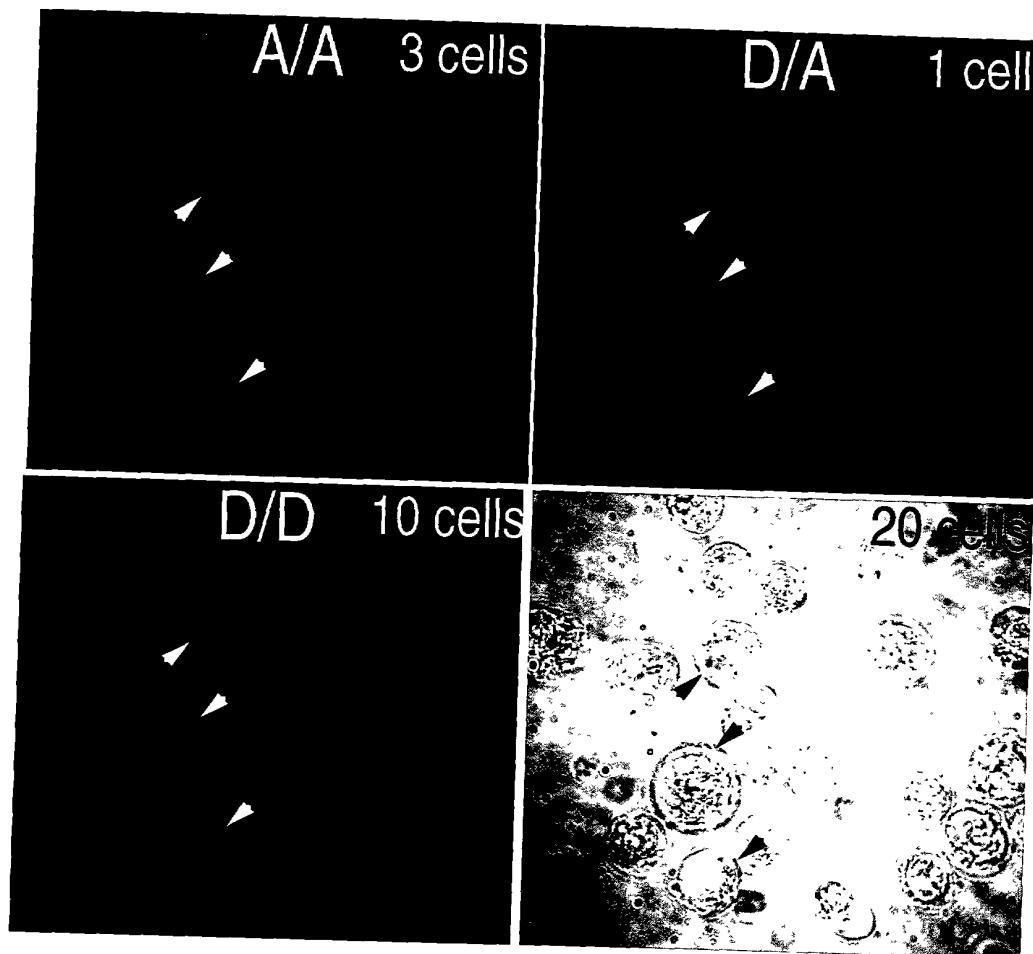
Inventors: ISHIBASHI et al.

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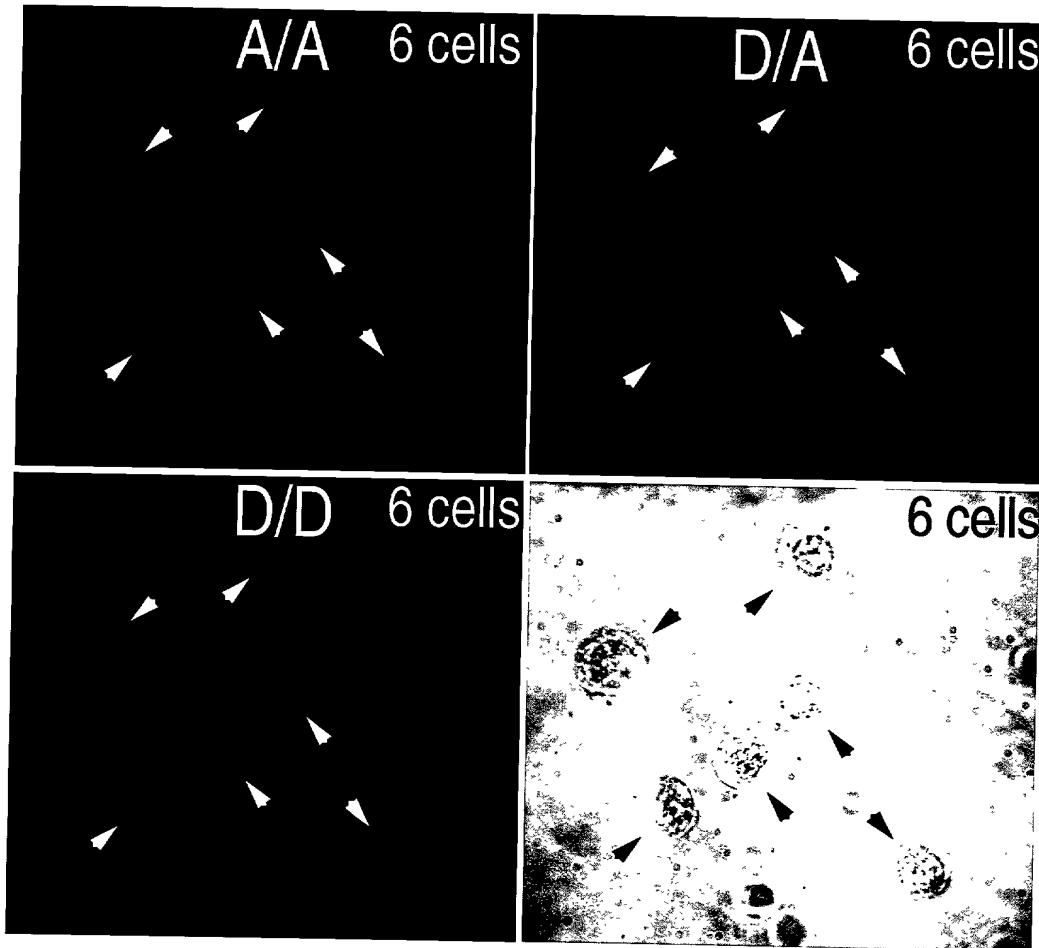
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**Fig.42**



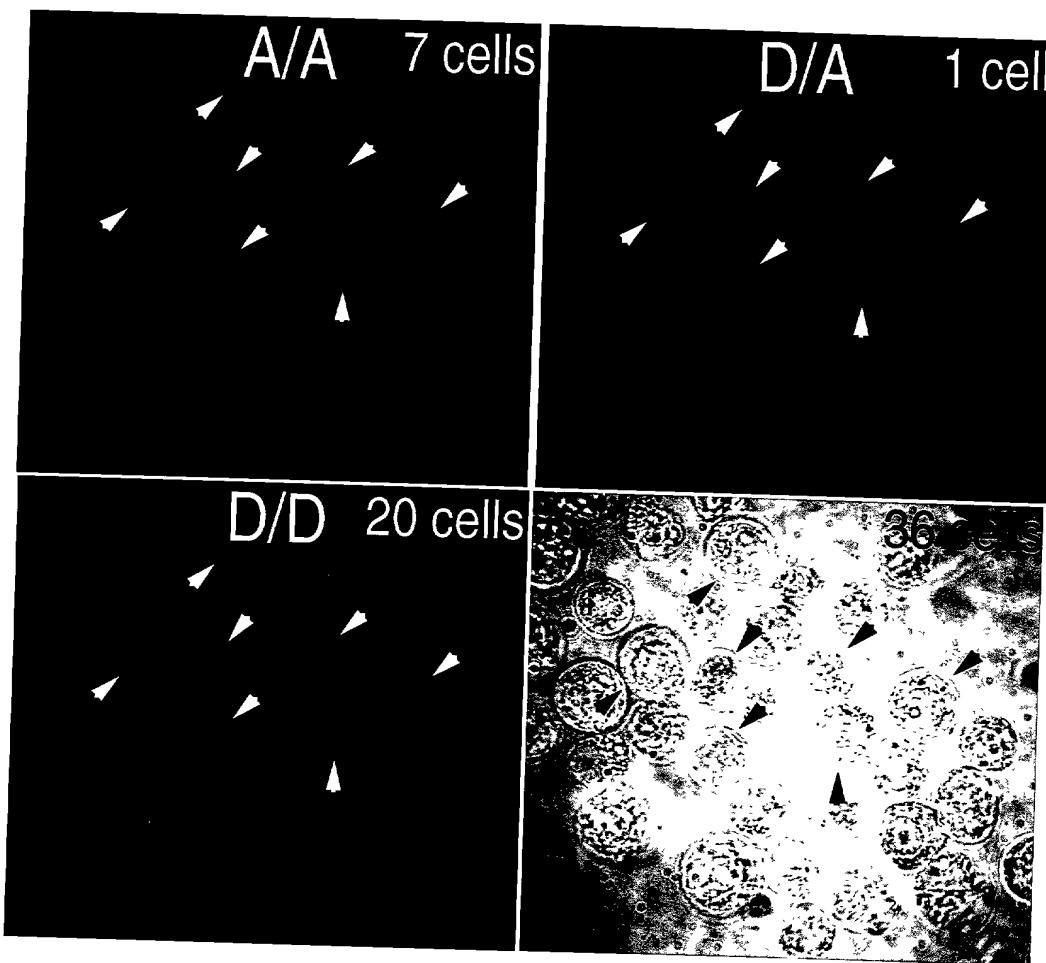
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**Fig.43**



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**Fig.44**



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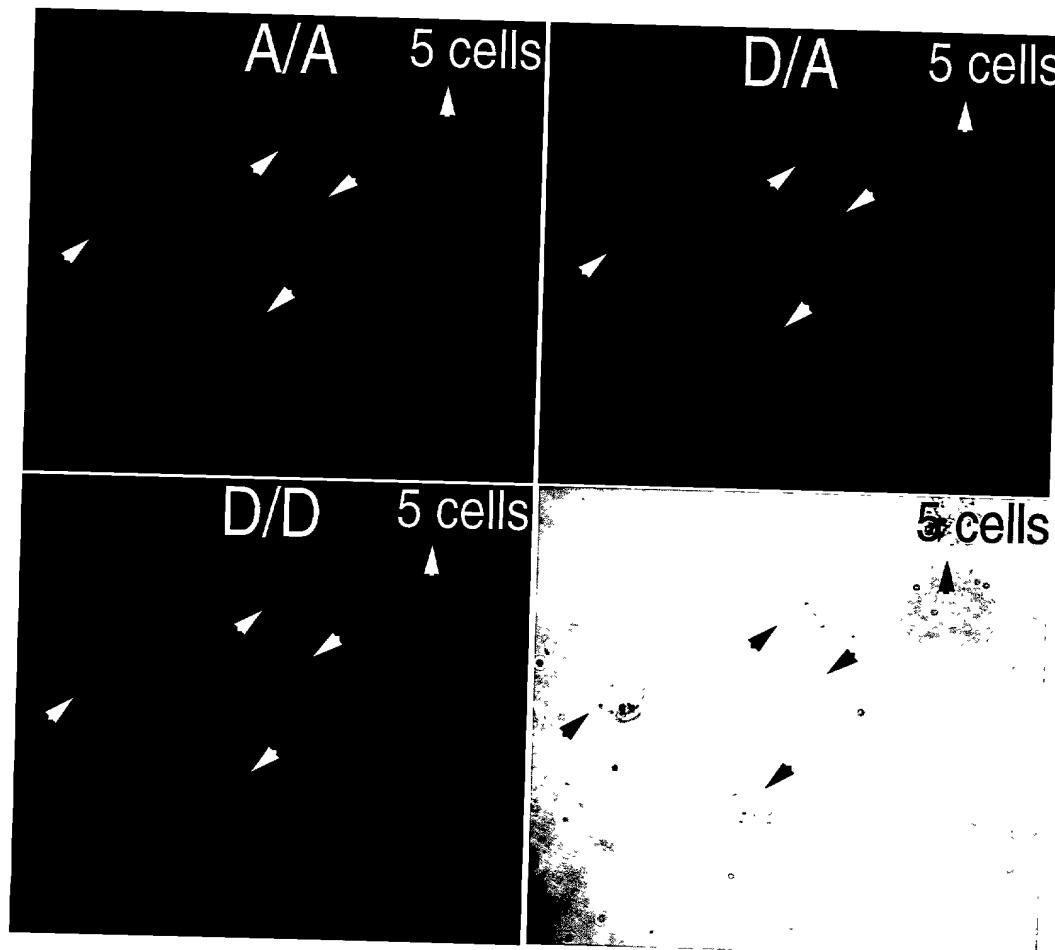
Inventors: ISHIBASHI et al.

Atty Docket No.: 400684/SOEI

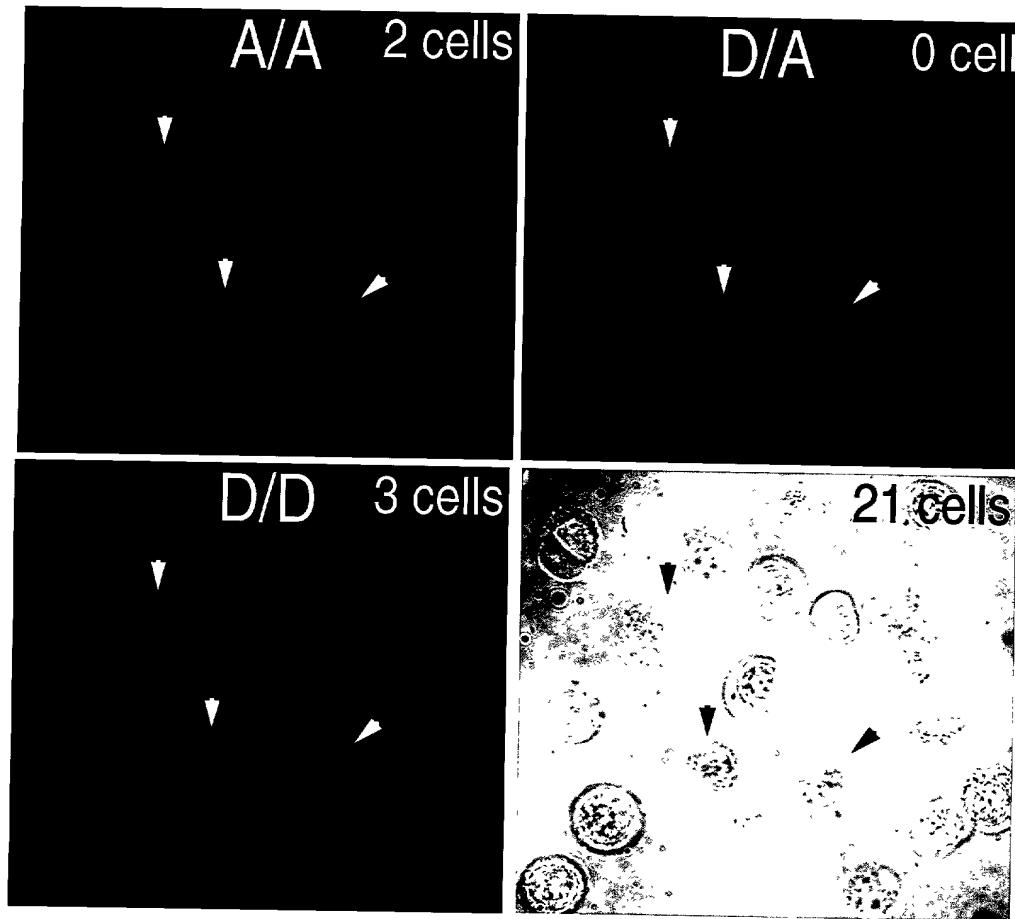
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**Fig.45**

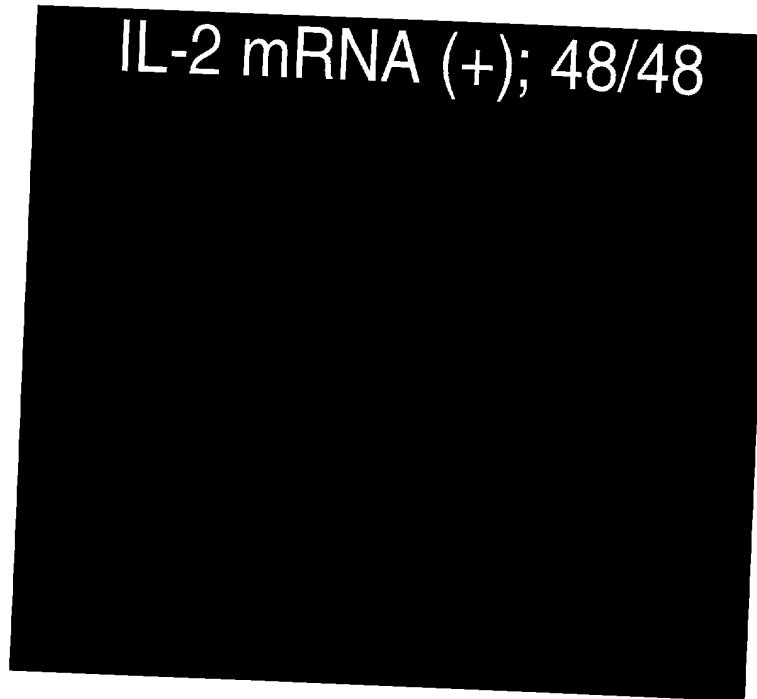


**Fig.46**



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**Fig.47**



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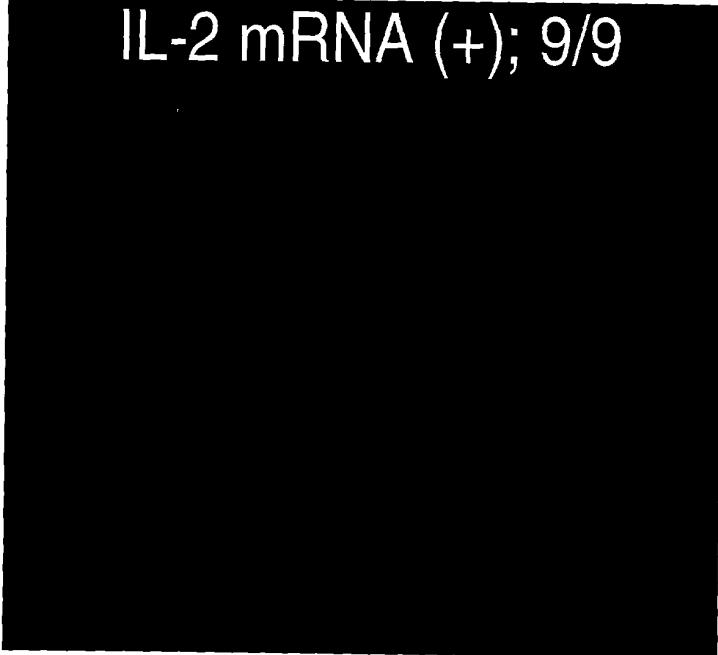
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**Fig.48**

IL-2 mRNA (+); 9/9



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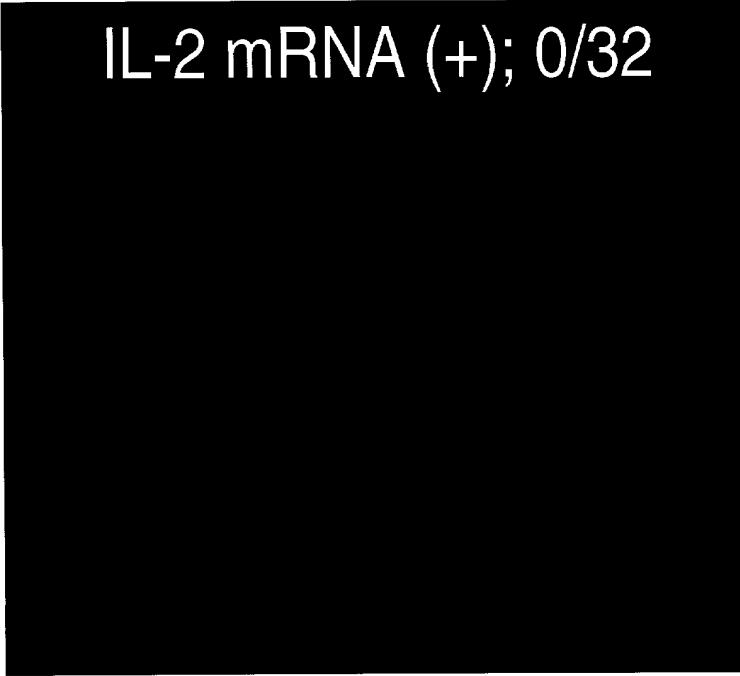
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**Fig.49**

IL-2 mRNA (+); 0/32



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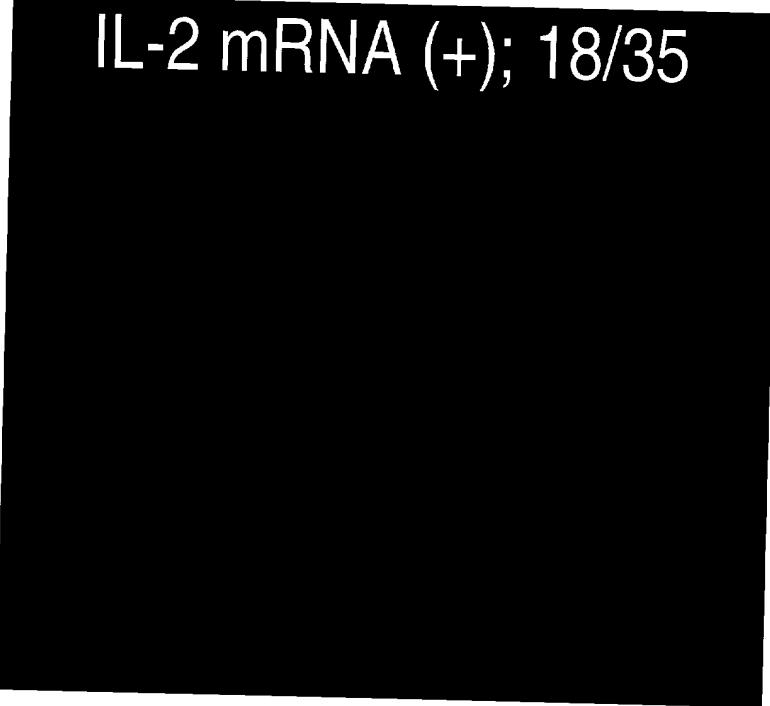
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**Fig.50**

IL-2 mRNA (+); 18/35



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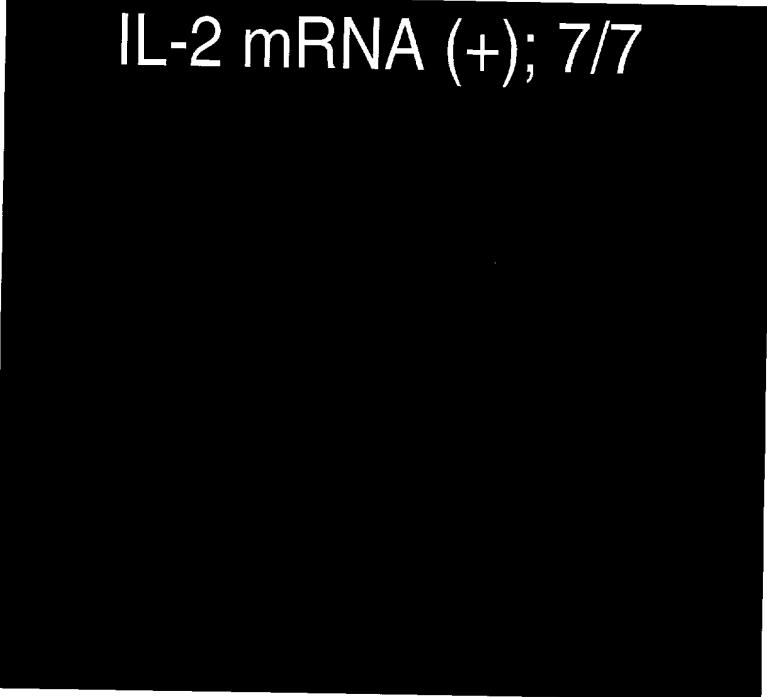
Atty Docket No.: 400684/SOEI

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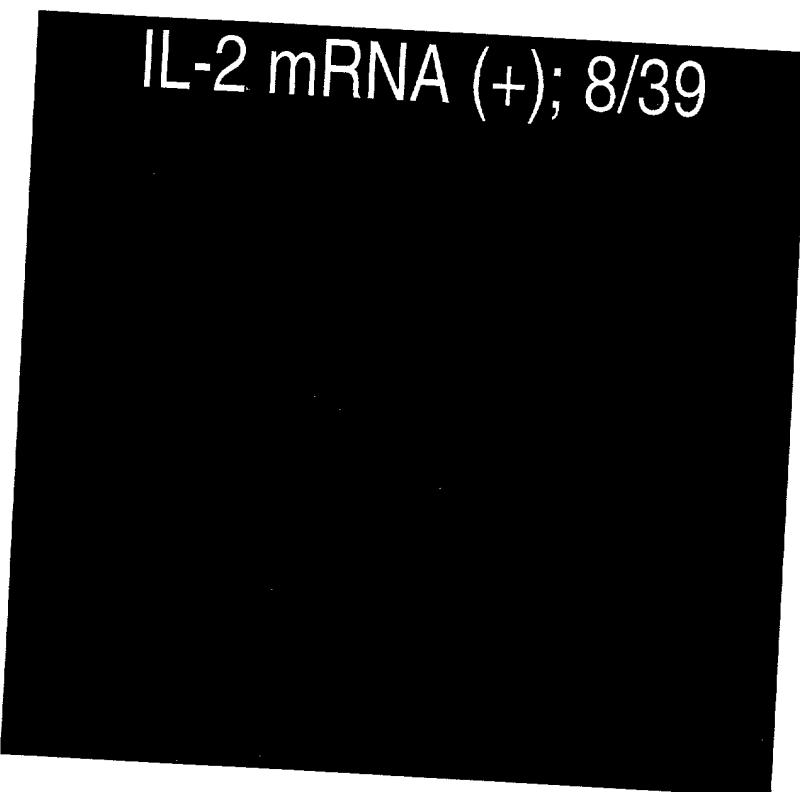
202-737-6770

**Fig.51**

IL-2 mRNA (+); 7/7

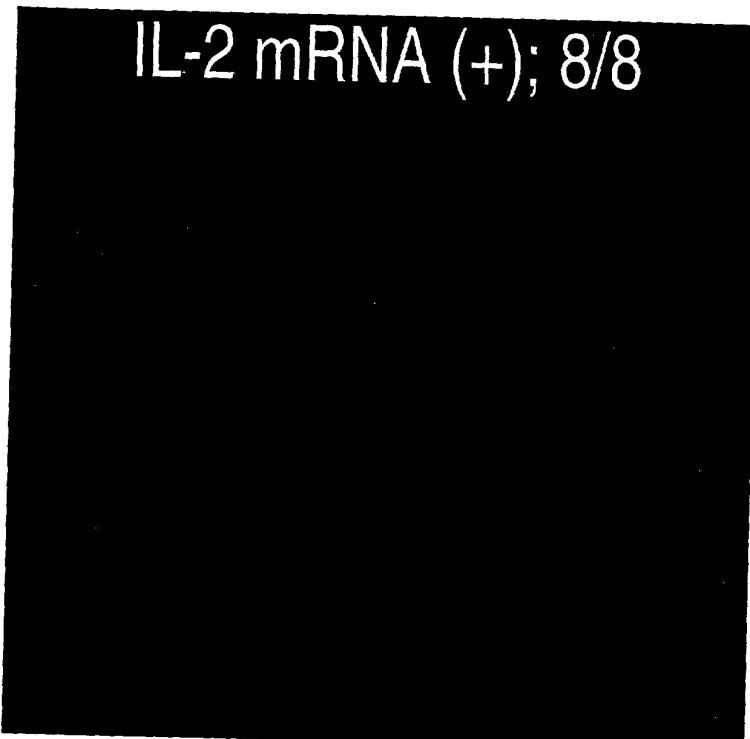


***Fig.52***



**Fig.53**

IL-2 mRNA (+); 8/8



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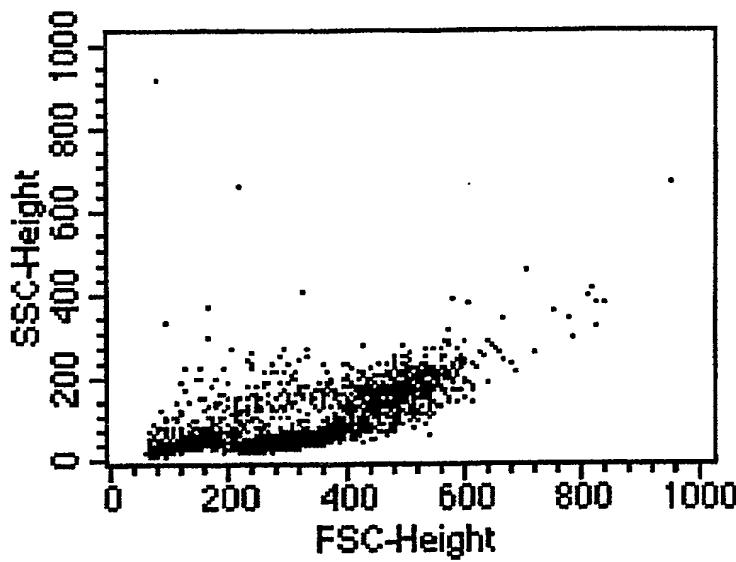
Inventors: ISHIBASHI et al.

Atty Docket No.: 400684/SOEI

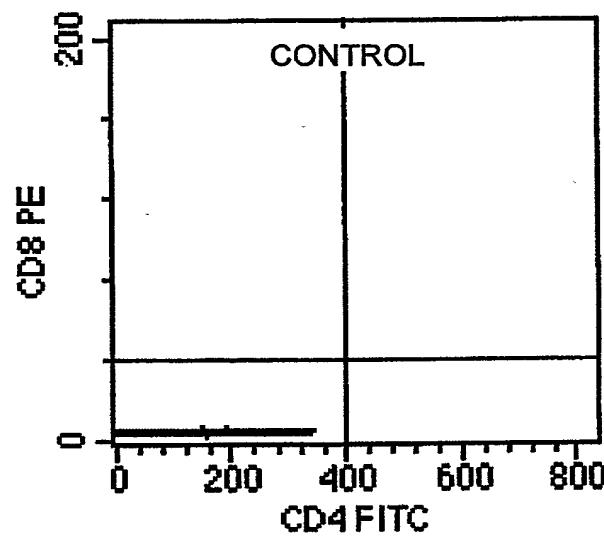
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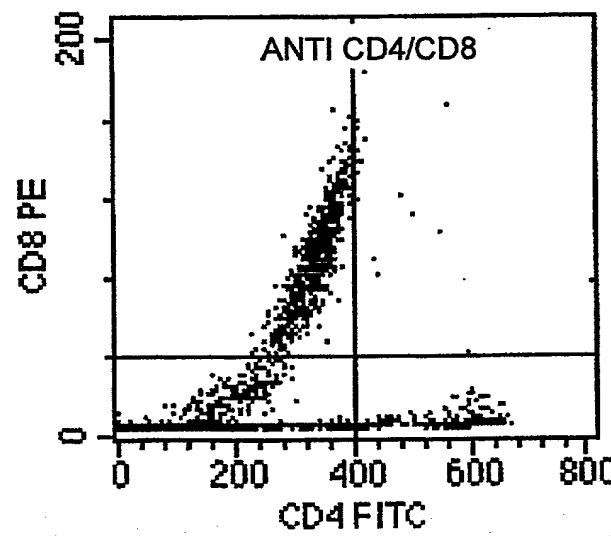
**Fig.54**



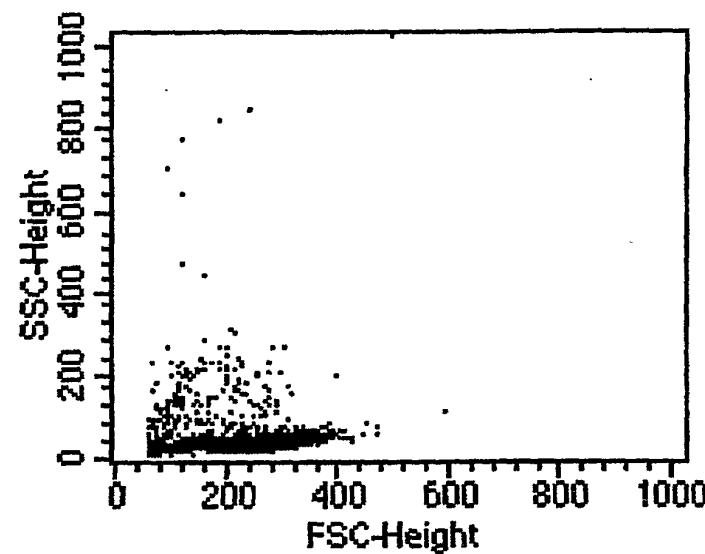
**Fig.55**



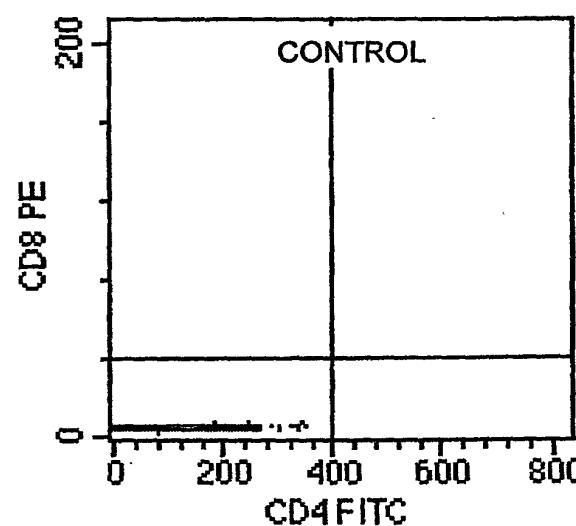
**Fig.56**



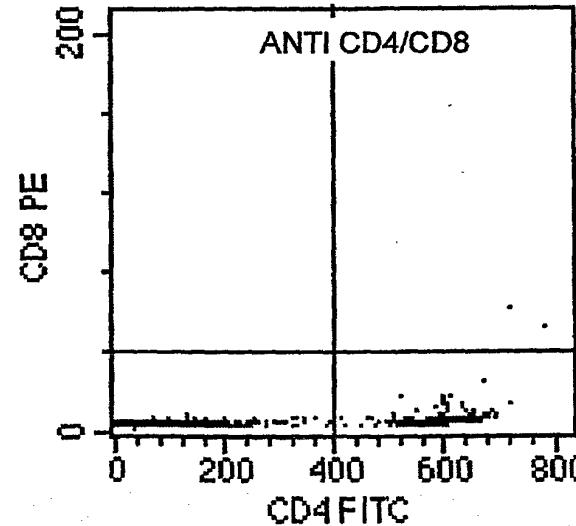
**Fig.57**



**Fig.58**

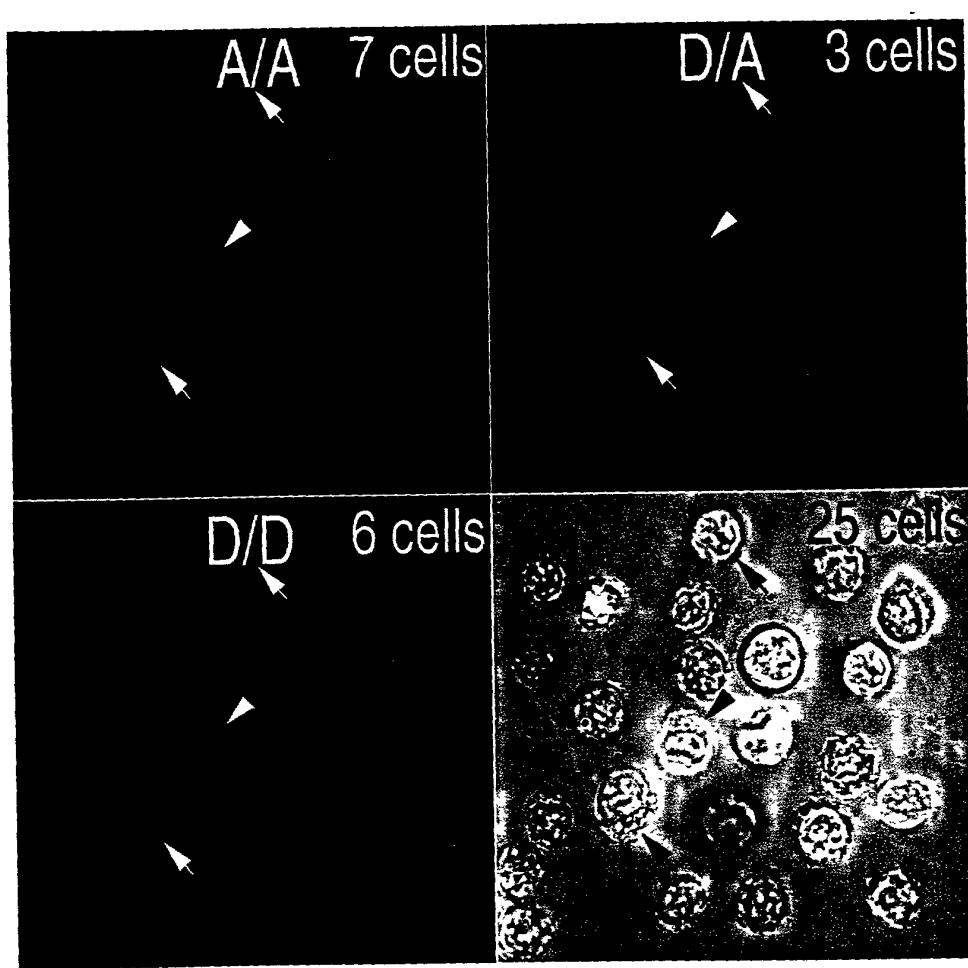


**Fig.59**



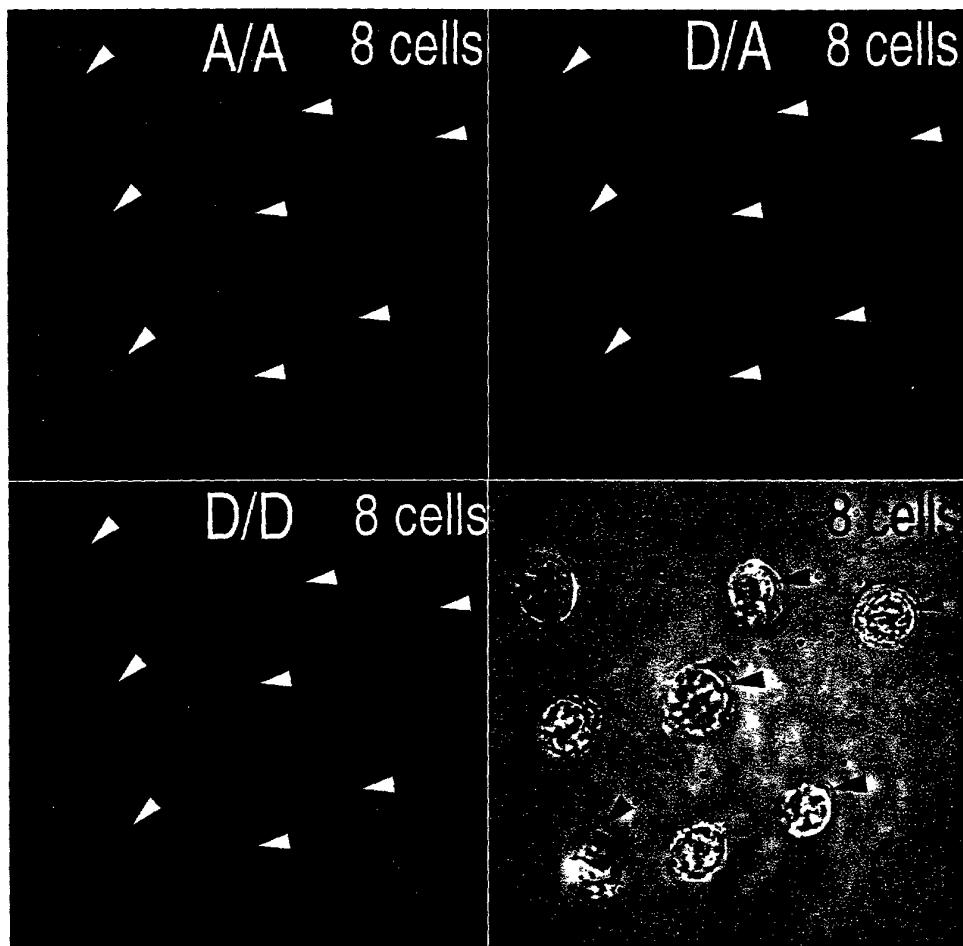
Title: Method For Selectively Separating Live Cells Expressing A Specific Gene  
Inventors: ISHIBASHI et al.  
Atty Docket No.: 400684/SOEI  
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202-737-6770

**Fig.60**

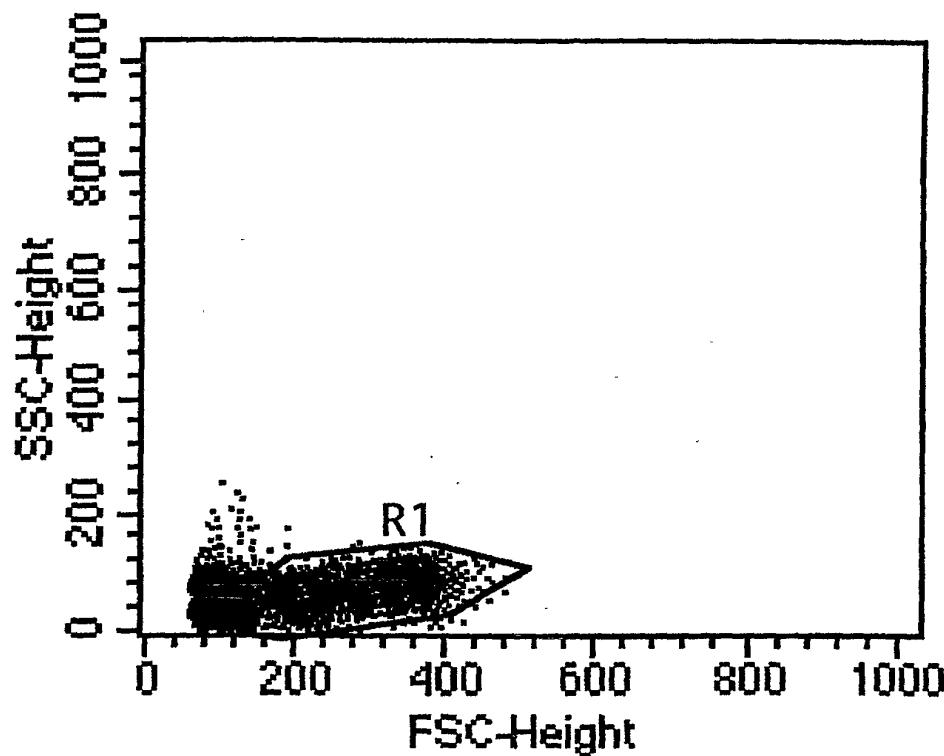


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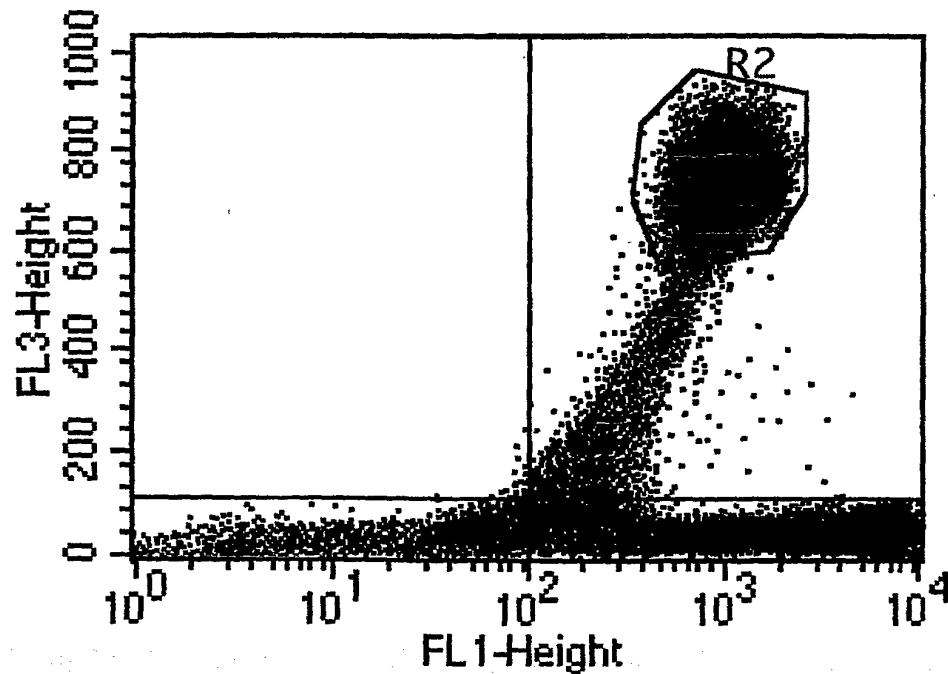
**Fig.61**



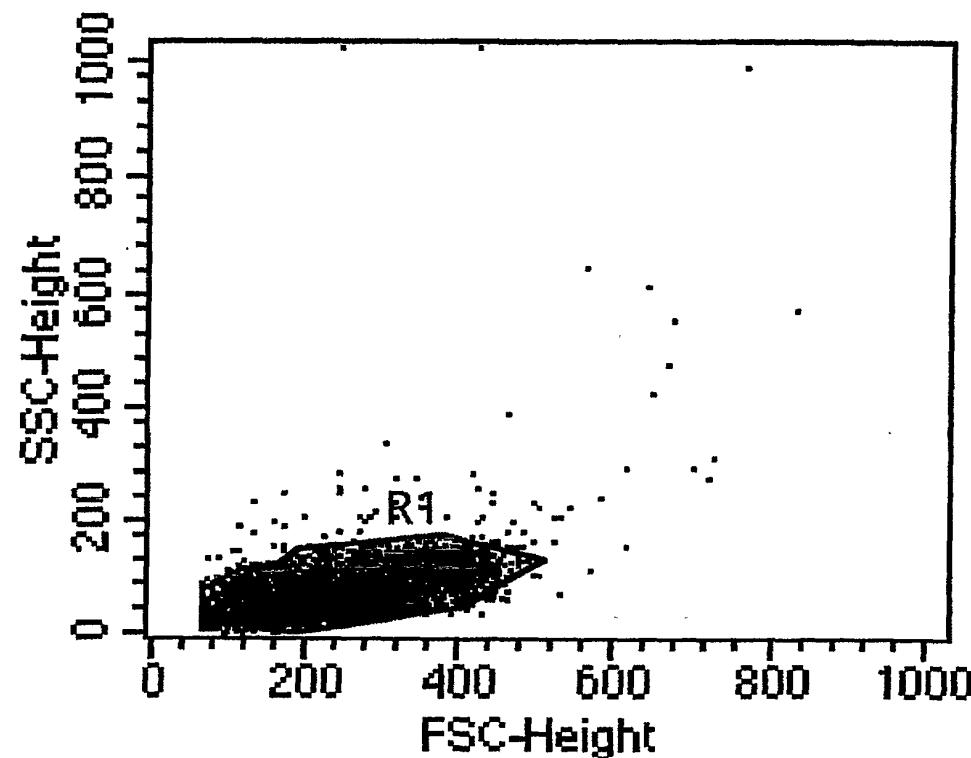
**Fig.62**



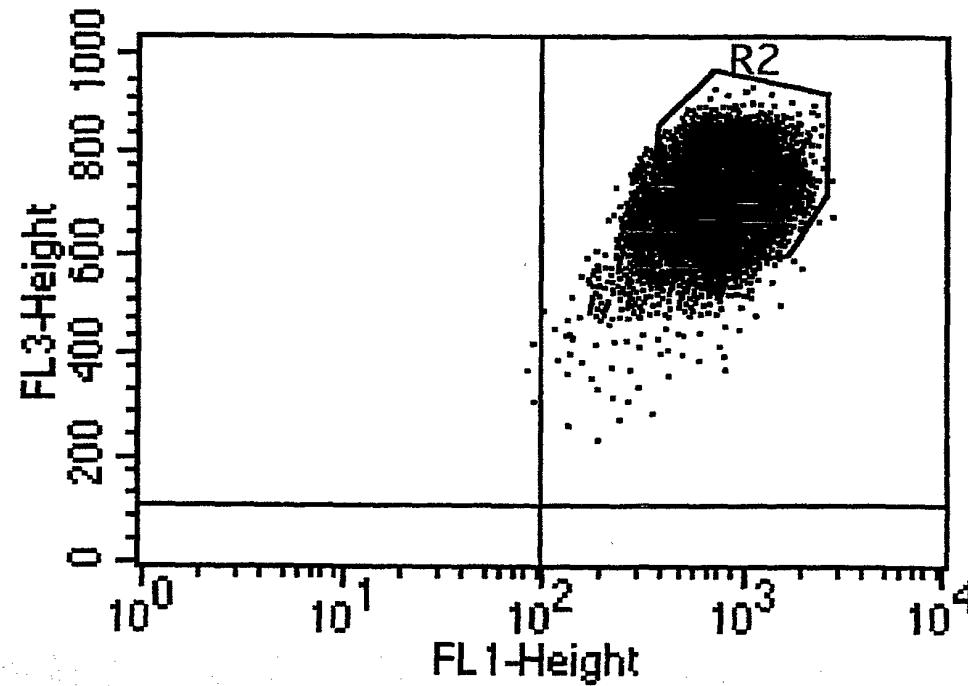
**Fig.63**



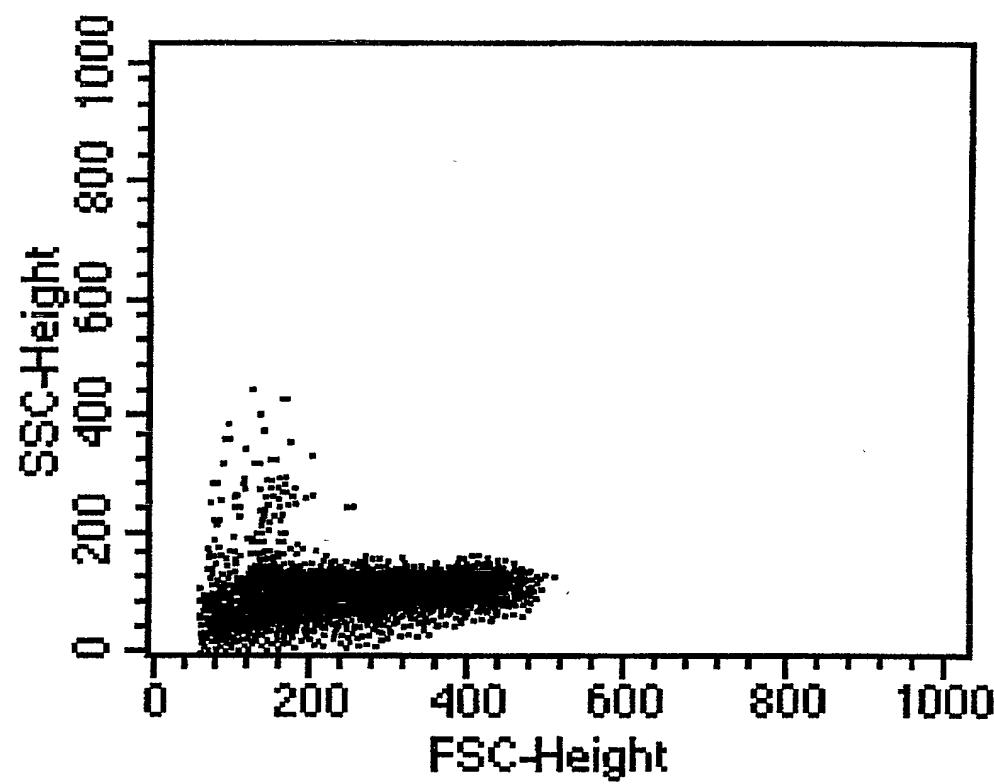
**Fig.64**



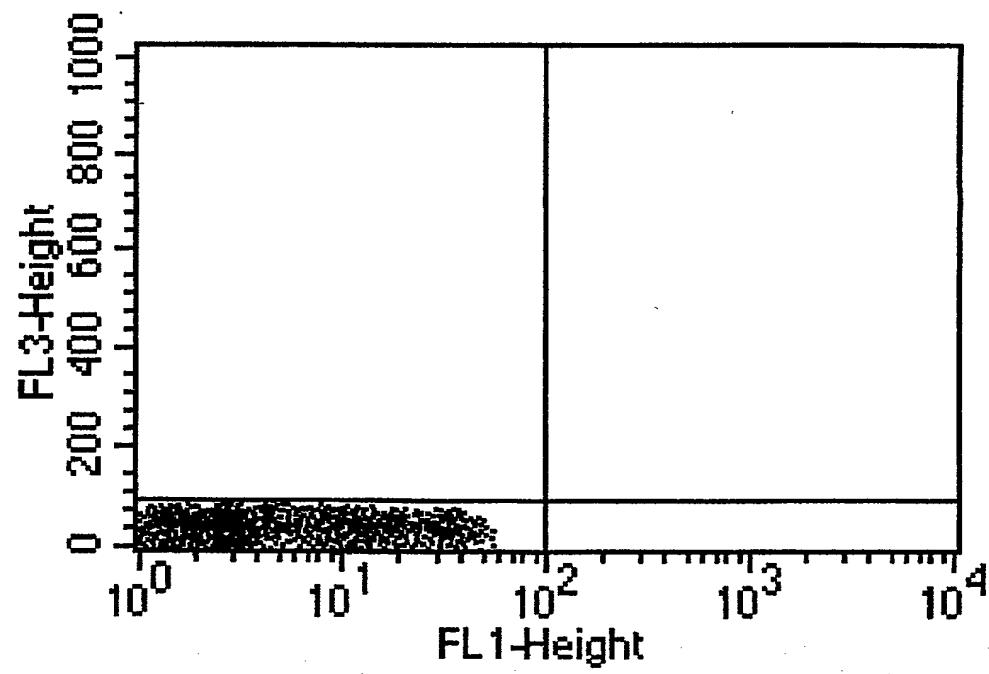
**Fig.65**



**Fig.66**



**Fig.67**



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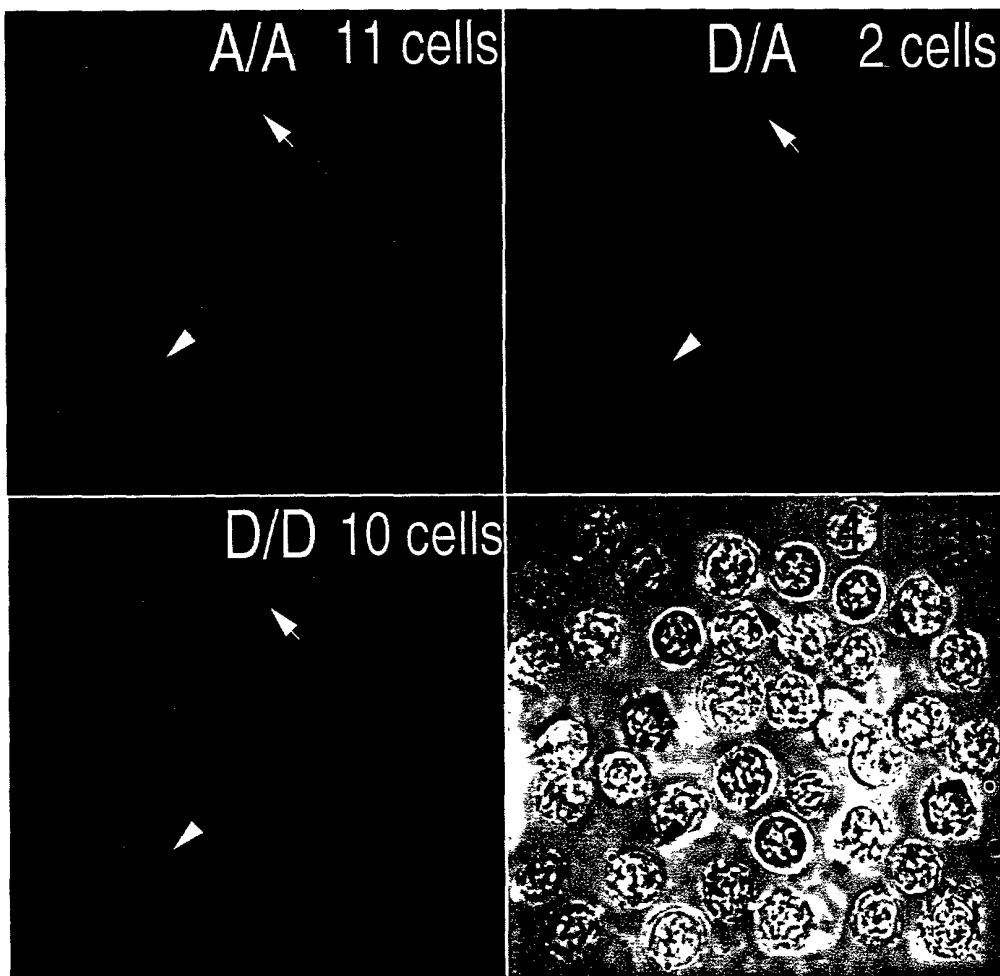
Inventors: ISHIBASHI et al.

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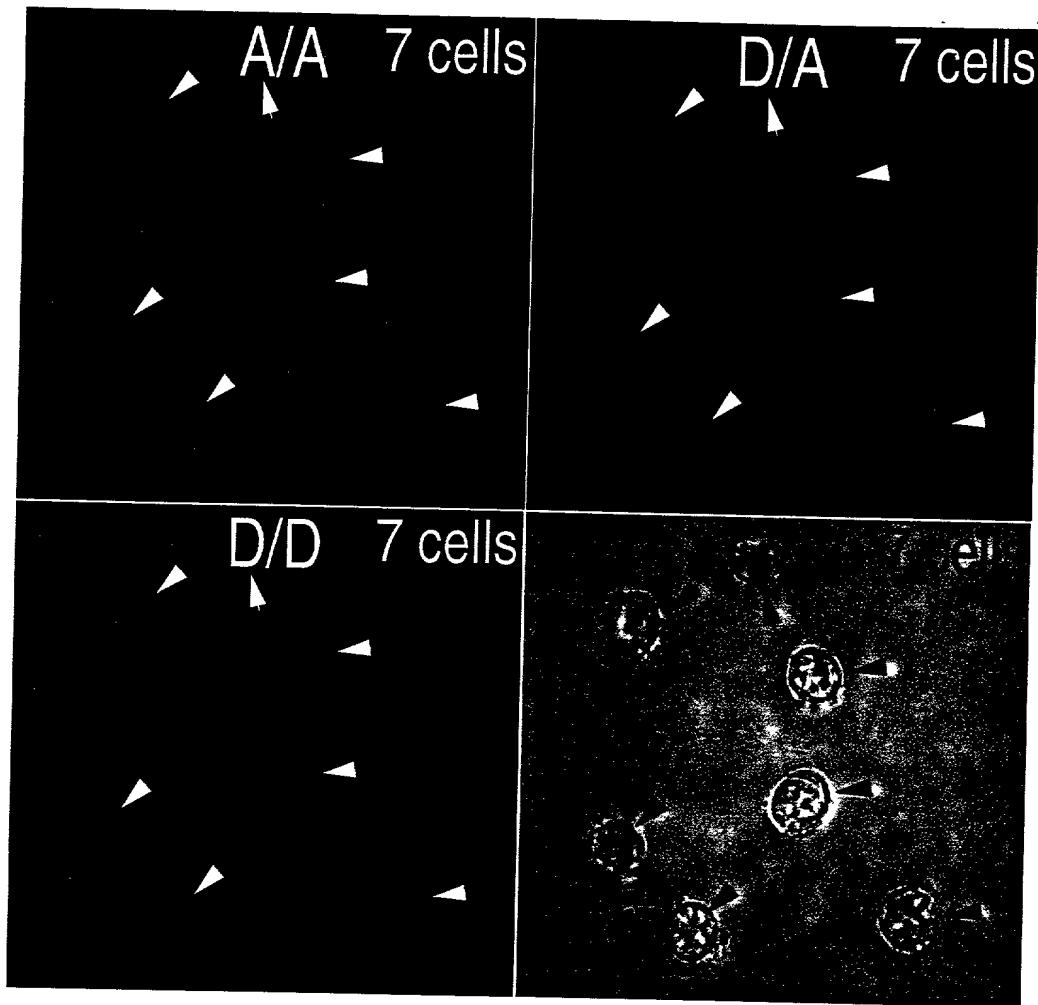
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## **Fig.68**

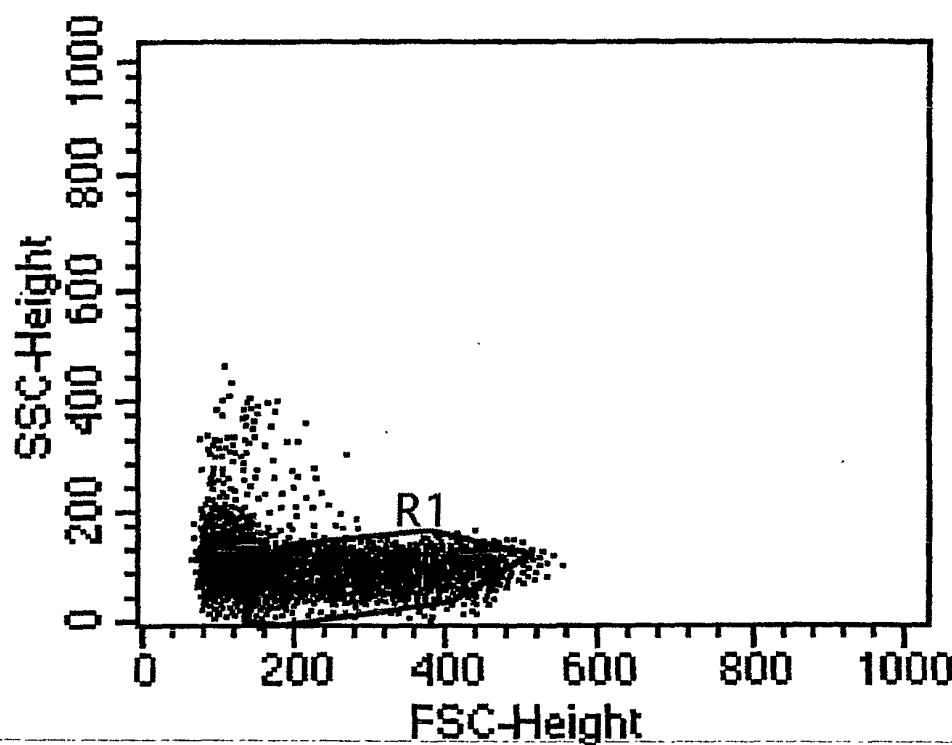


035020-0773523500

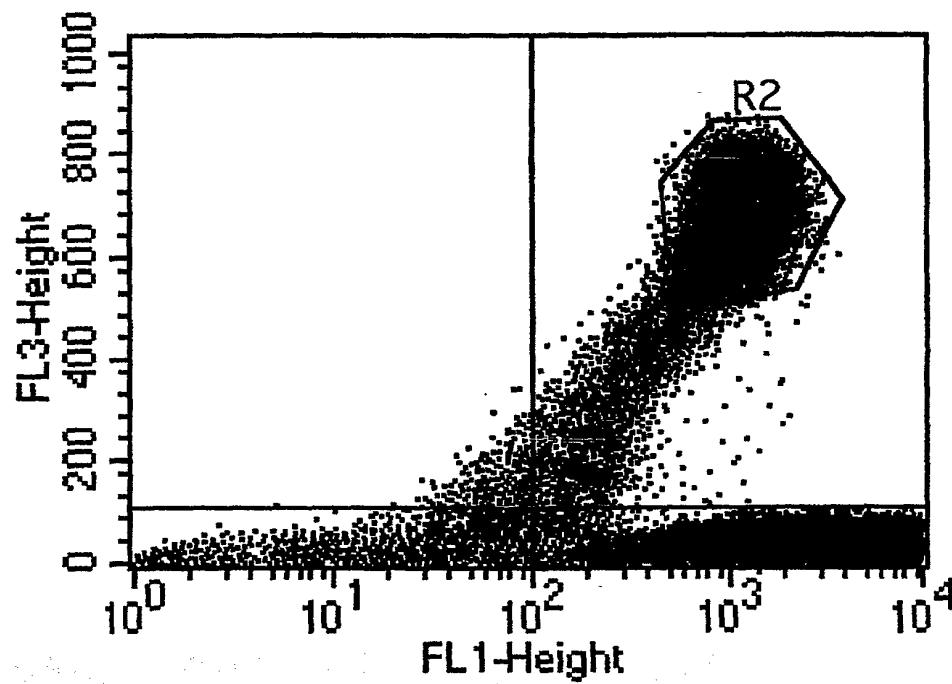
**Fig. 69**



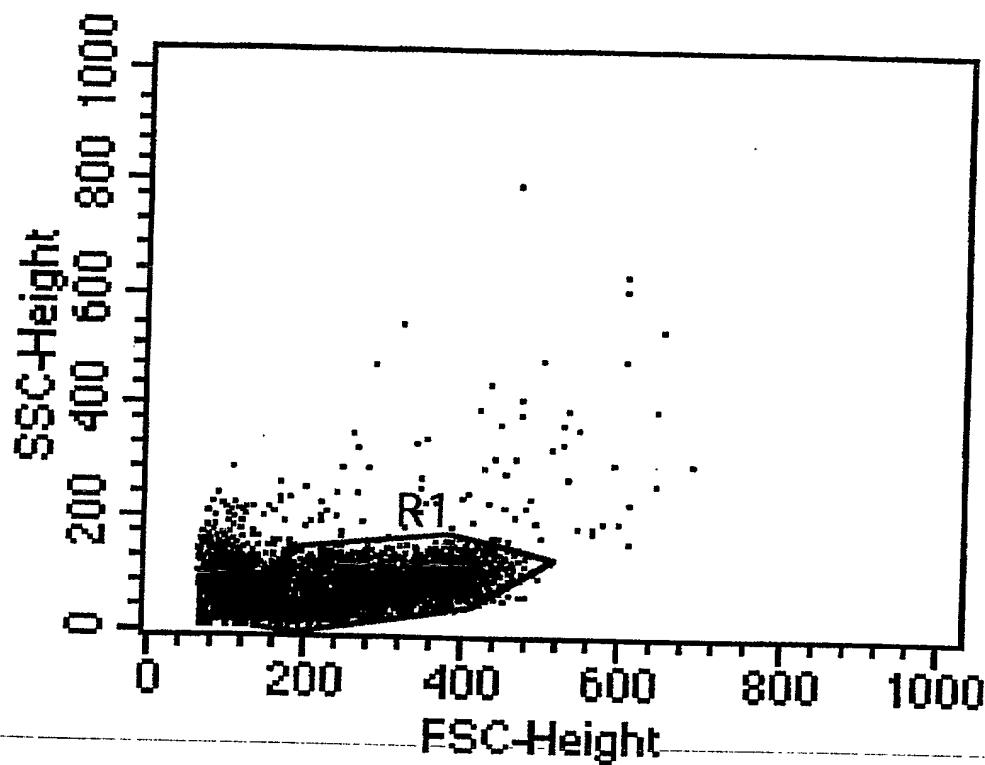
**Fig.70**



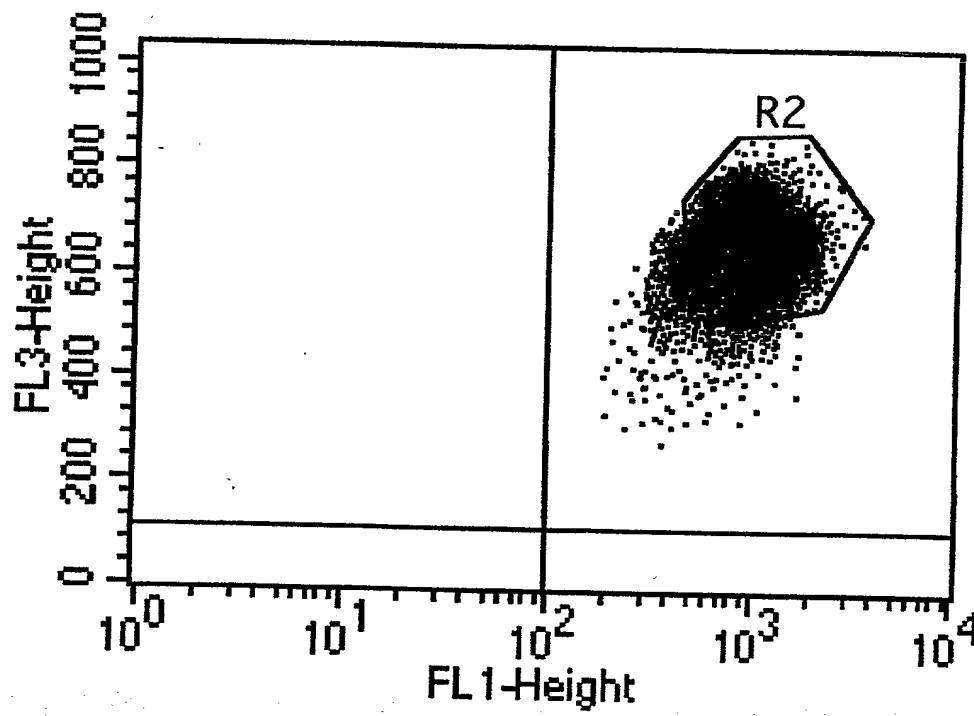
**Fig.71**



**Fig.72**

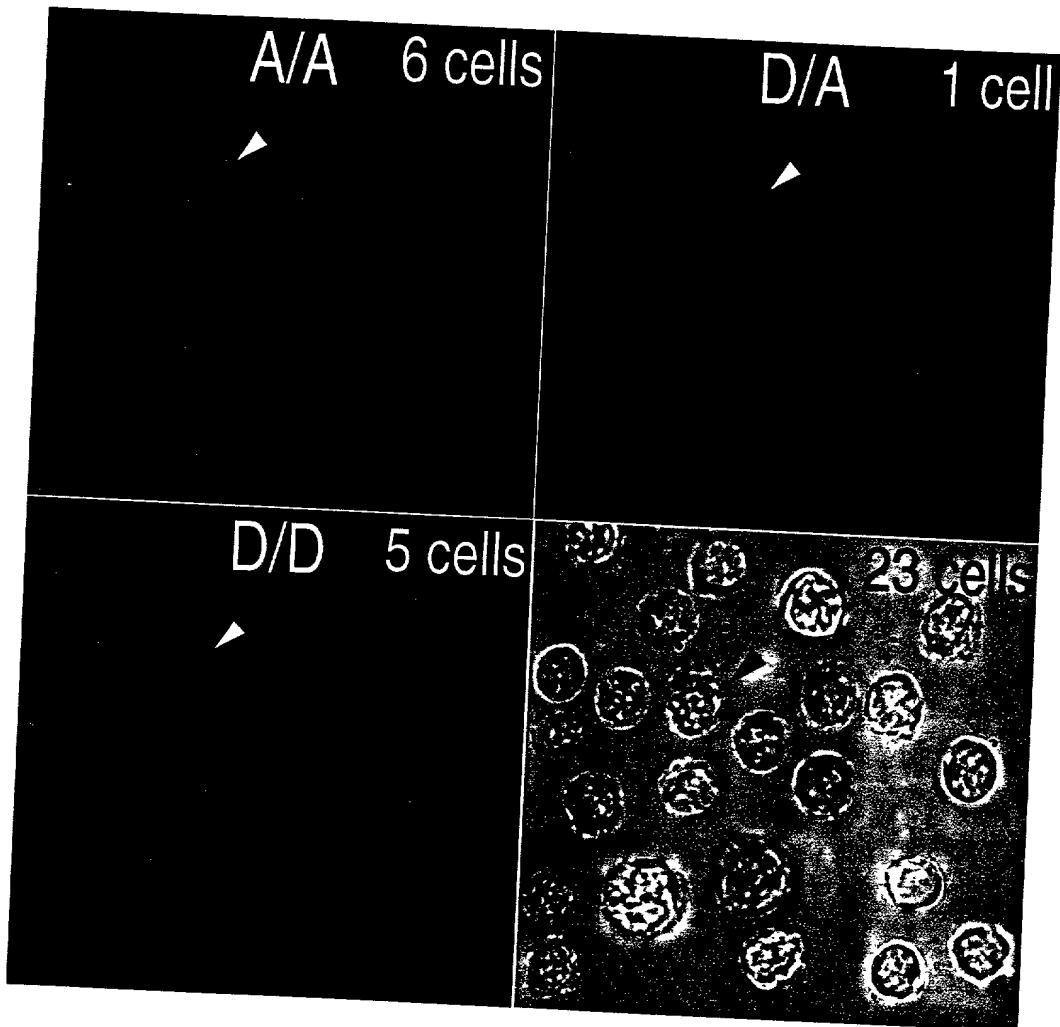


**Fig.73**

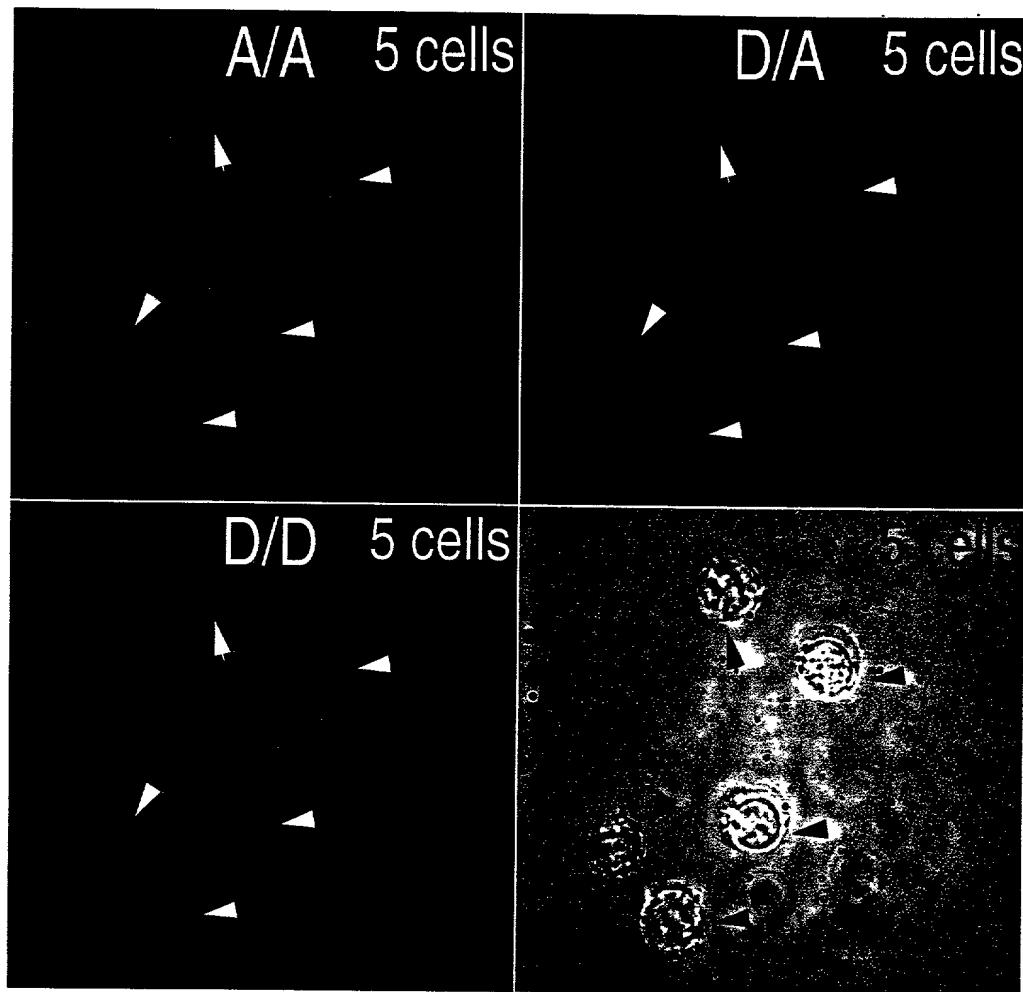


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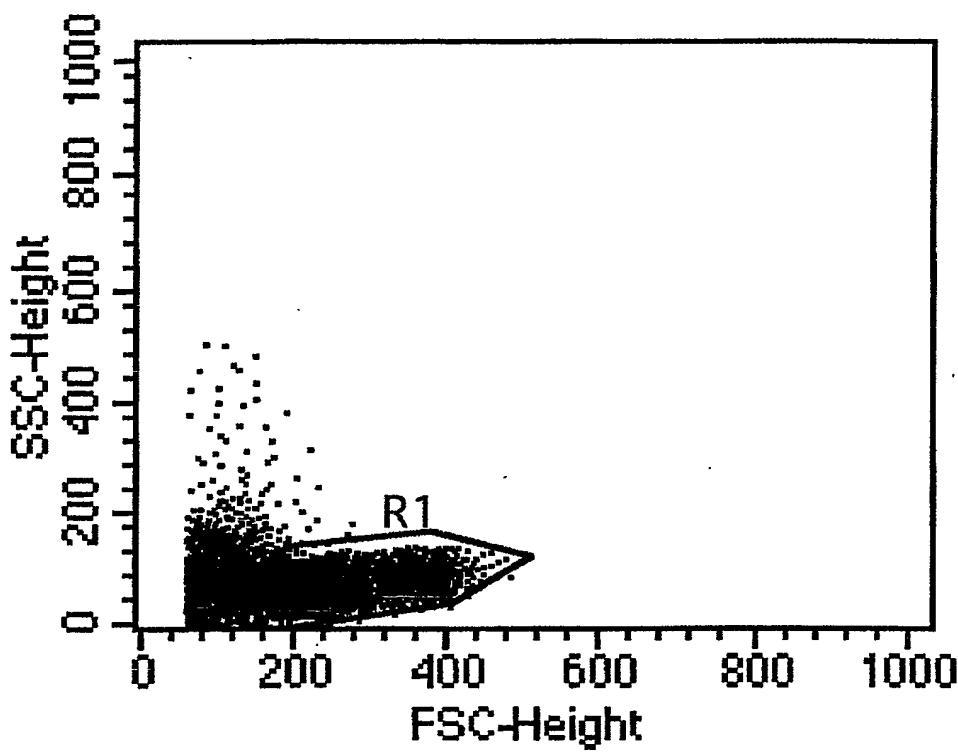
**Fig.74**



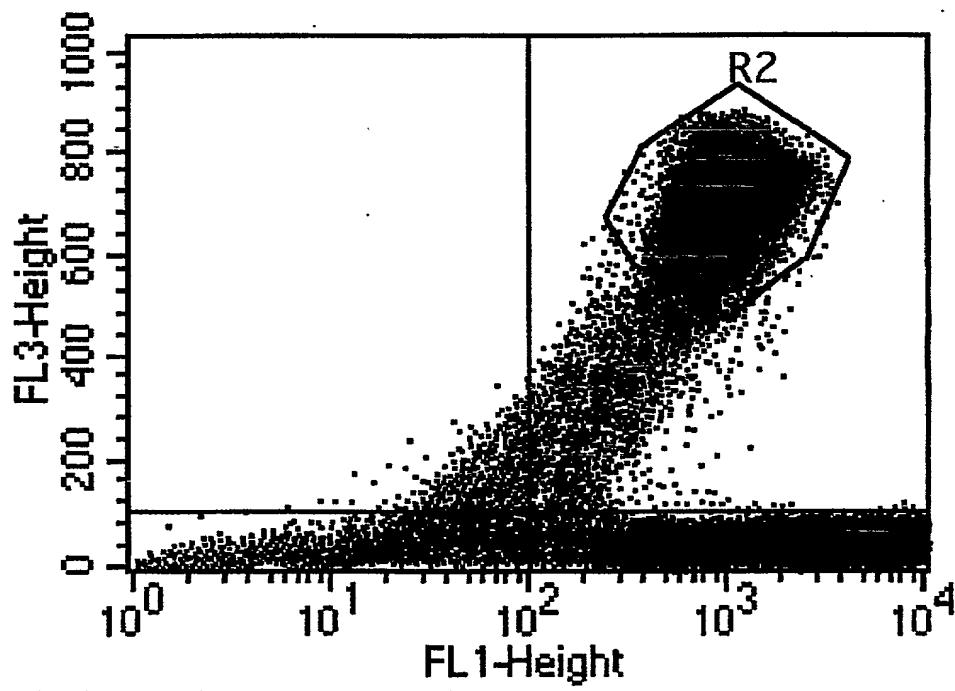
**Fig.75**



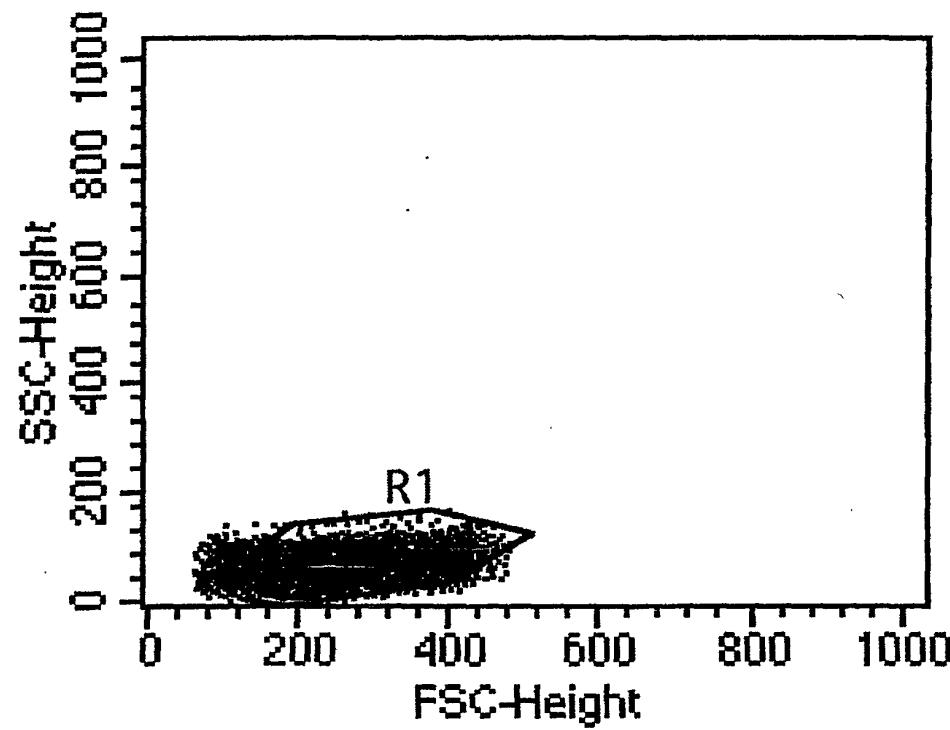
**Fig.76**



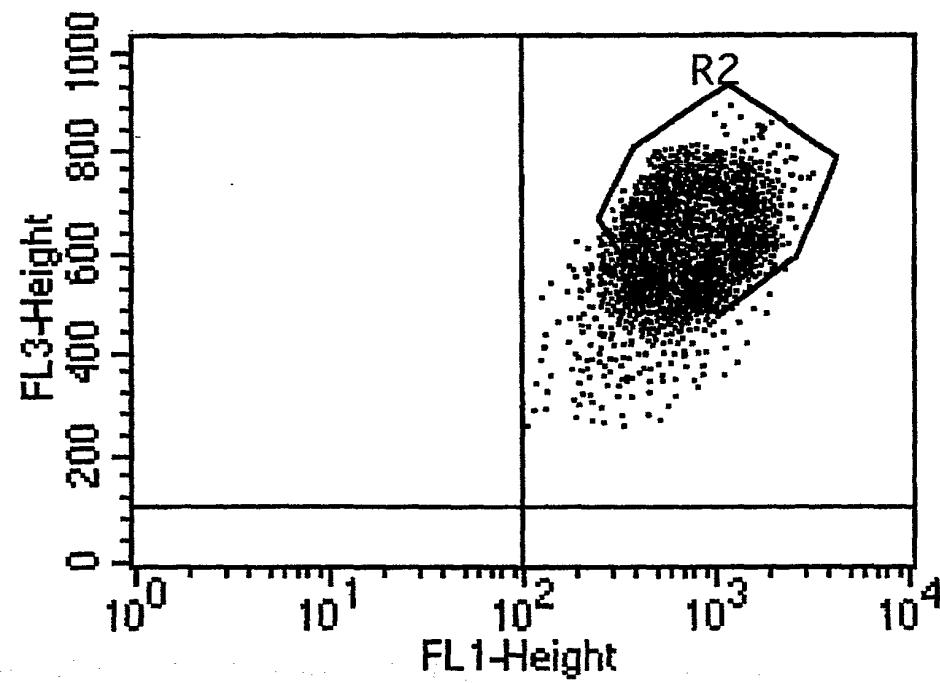
**Fig.77**



**Fig.78**



**Fig.79**



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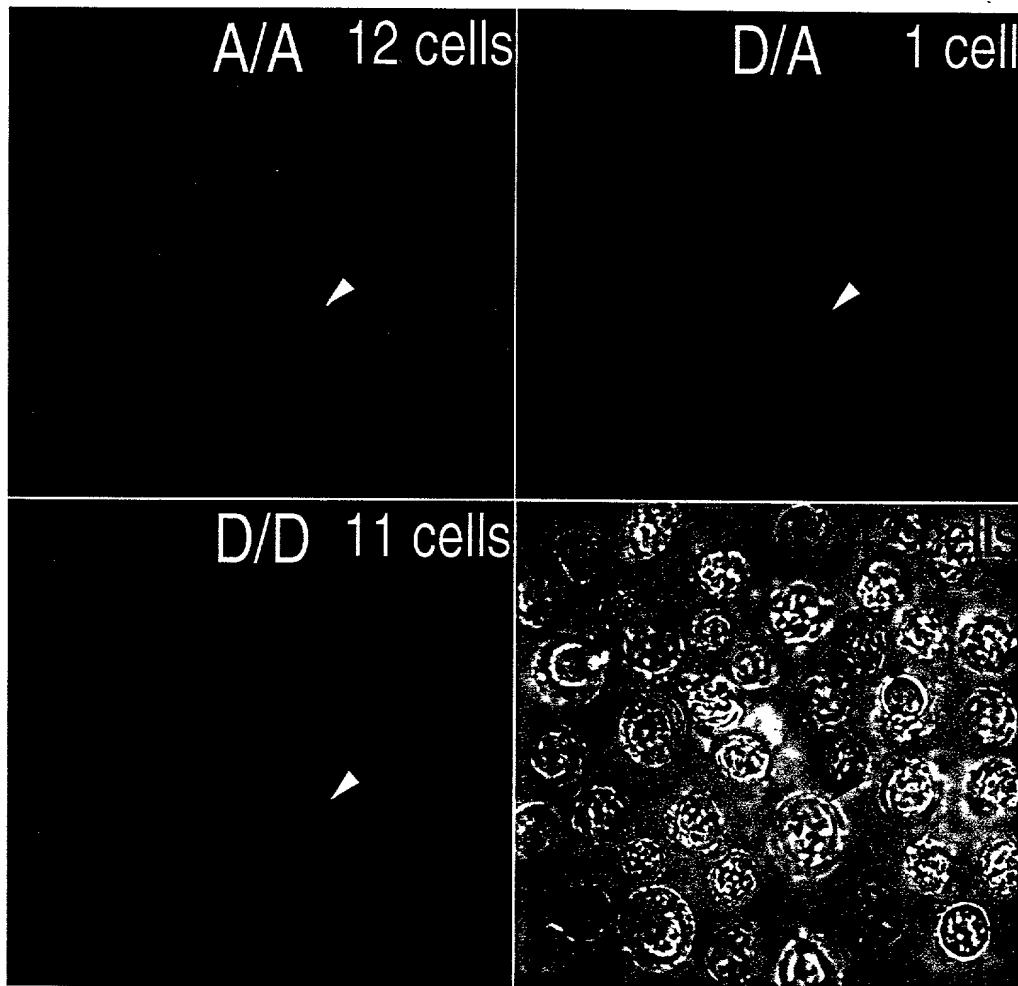
Inventors: ISHIBASHI et al.

Atty Docket No.: 400684/SOEI

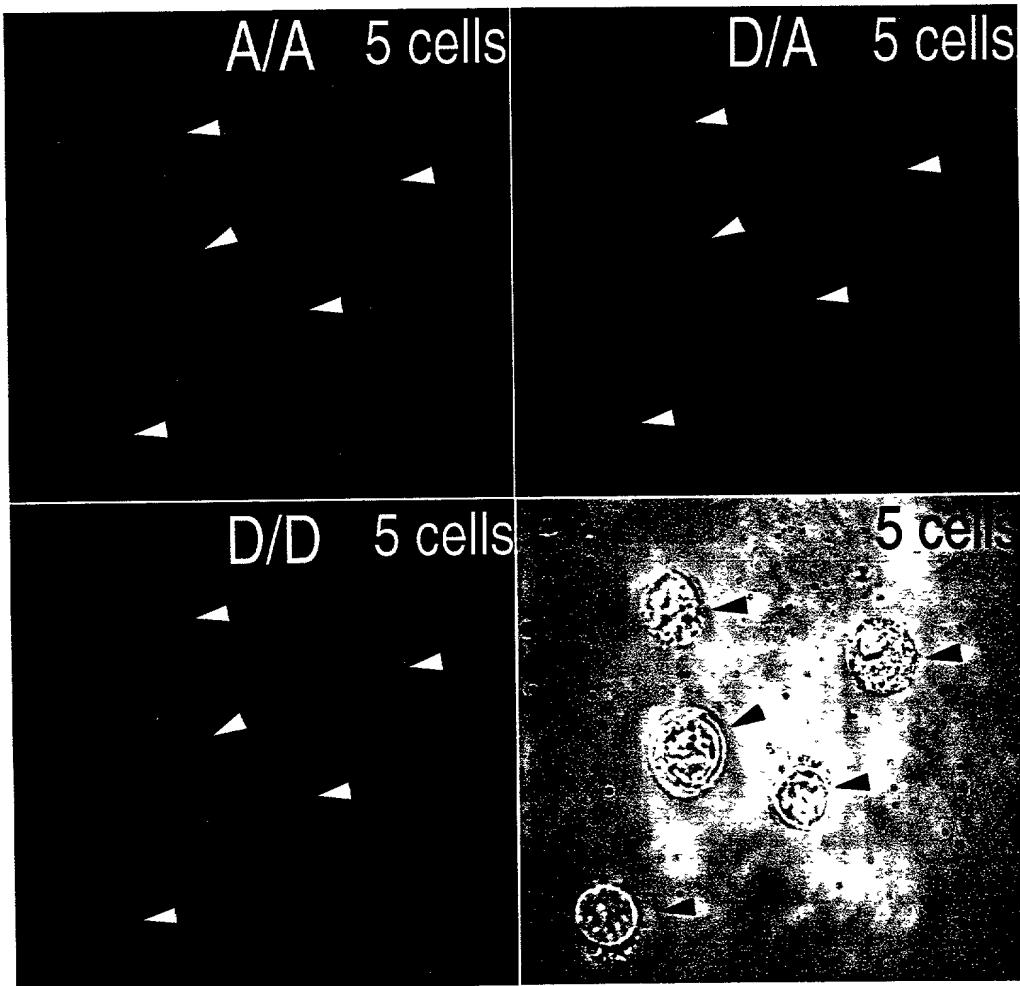
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**Fig.80**

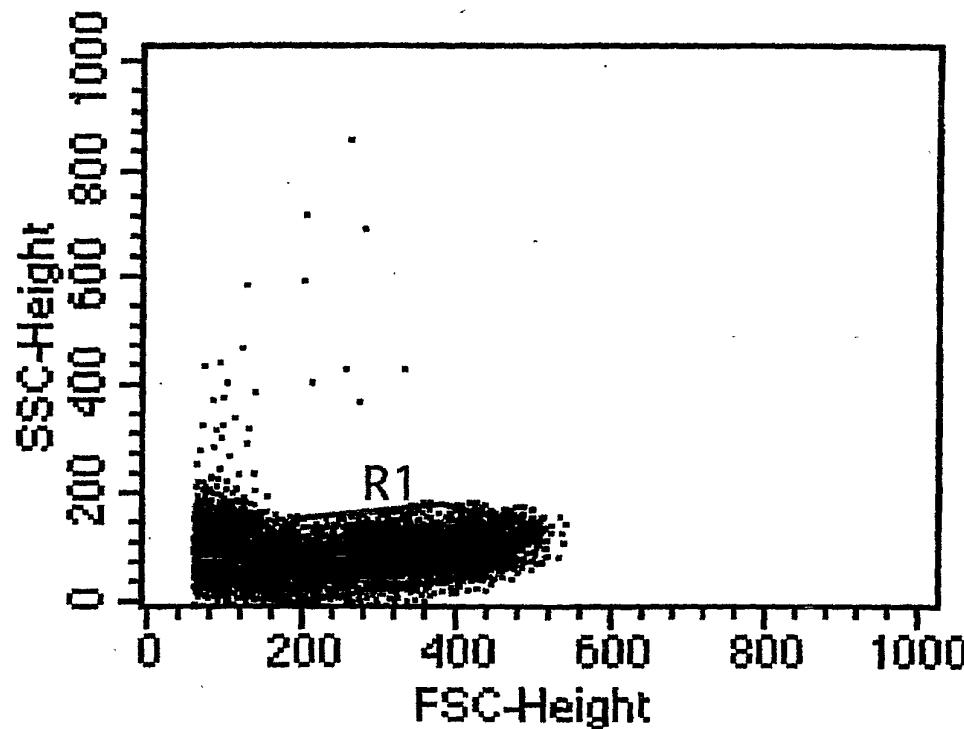


**Fig.81**

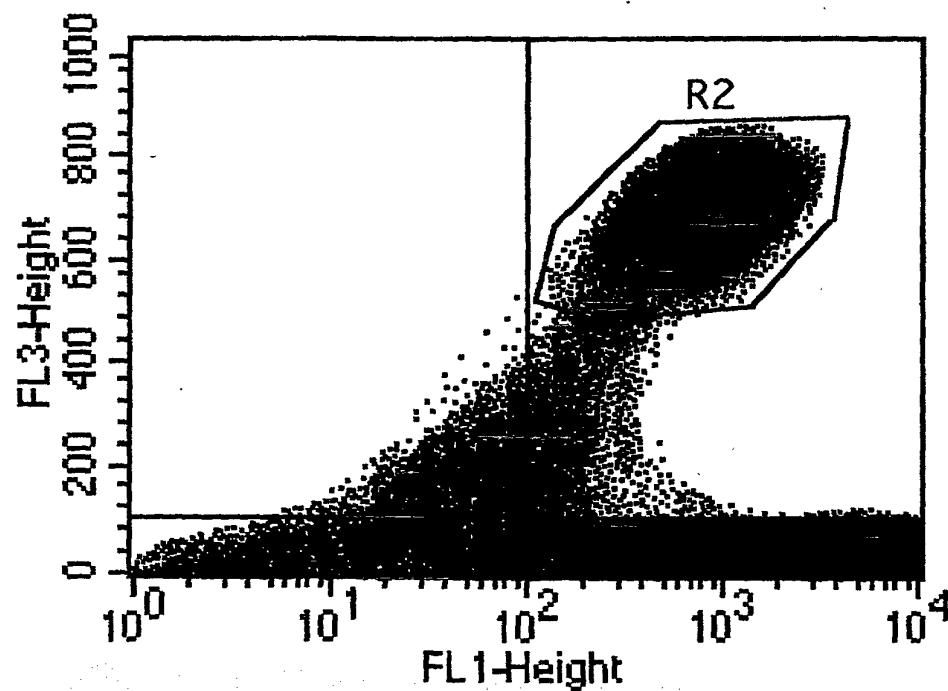


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**Fig.82**

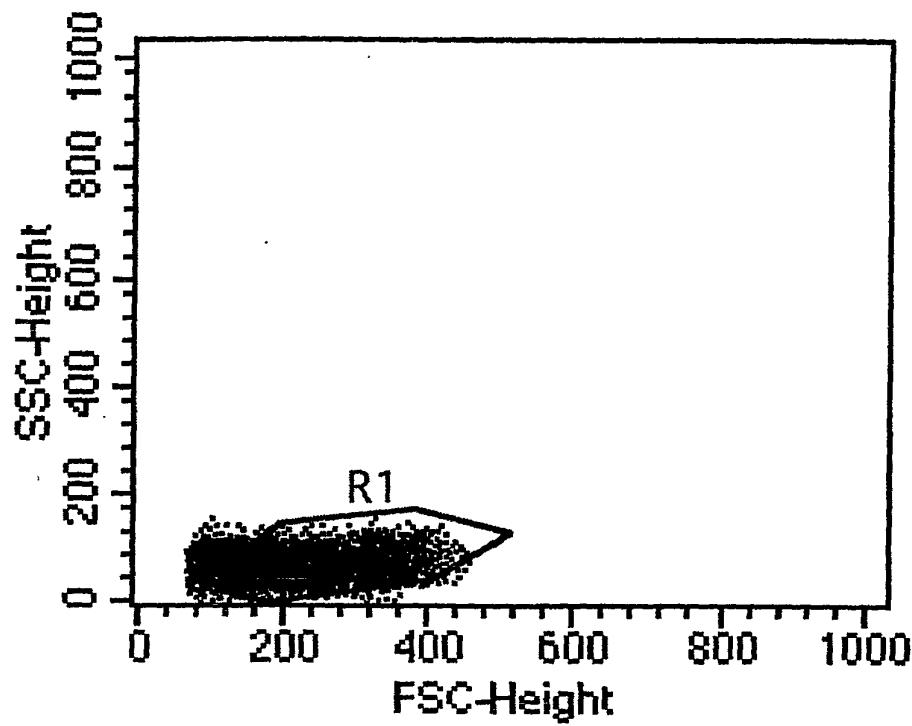


**Fig.83**

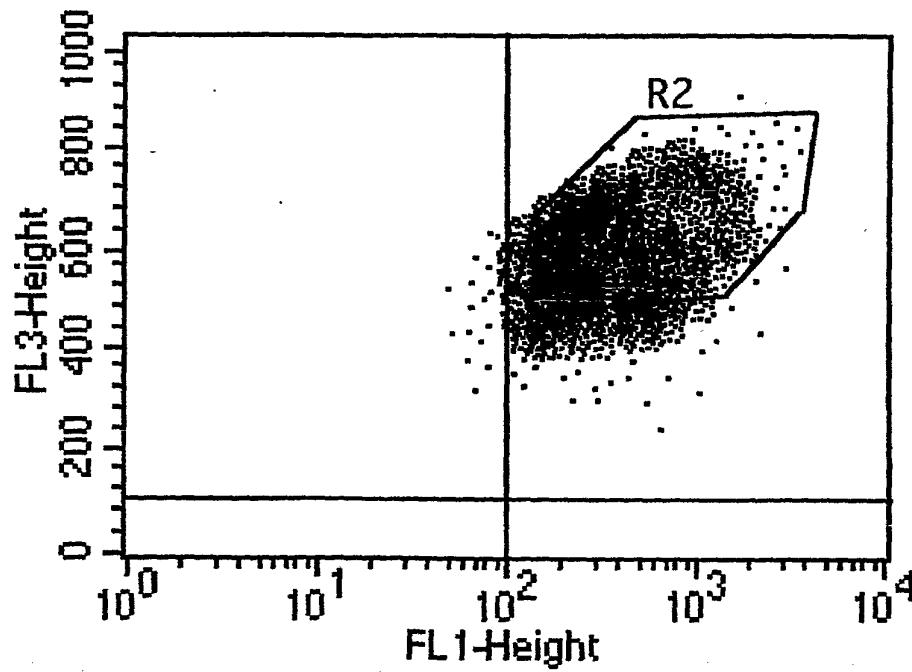


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**Fig.84**



**Fig.85**



## **Fig. 86**

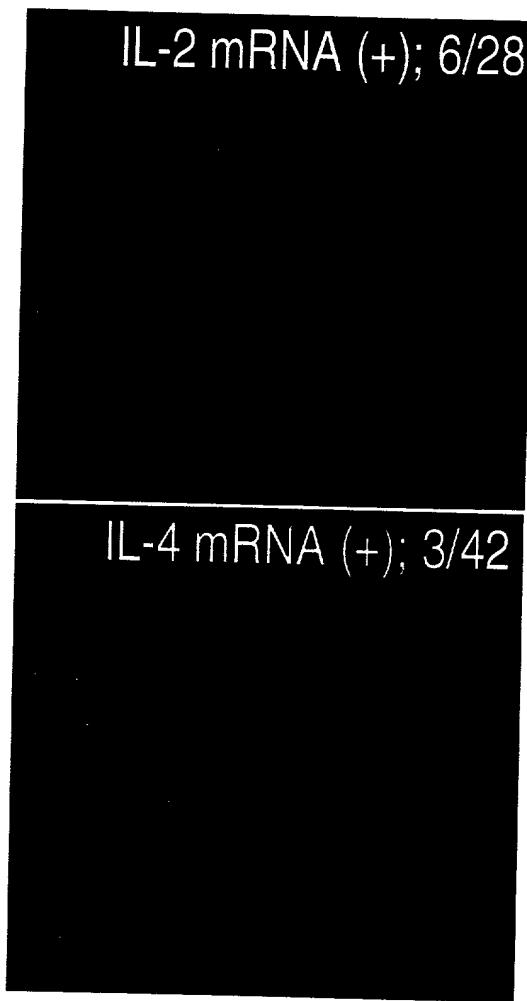


**Fig. 87**

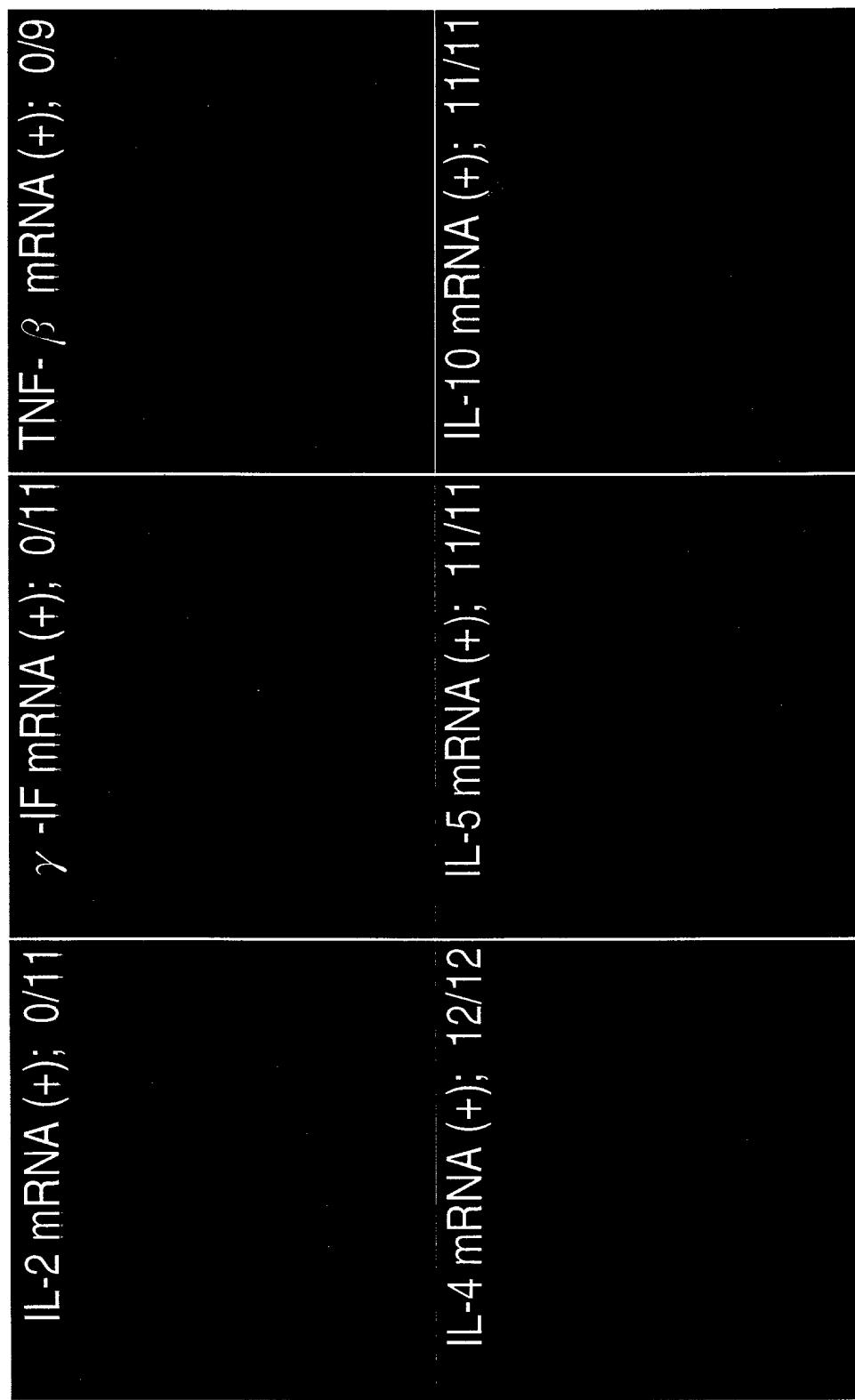
IL-2 mRNA (+); 11/11	$\gamma$ -IF mRNA (+); 14/14	TNF- $\beta$ mRNA (+); 11/11
IL-4 mRNA (+); 0/10	IL-5 mRNA (+); 0/11	IL-10 mRNA (+); 0/9

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## *Fig.88*



*Fig. 89*



**Fig. 90**

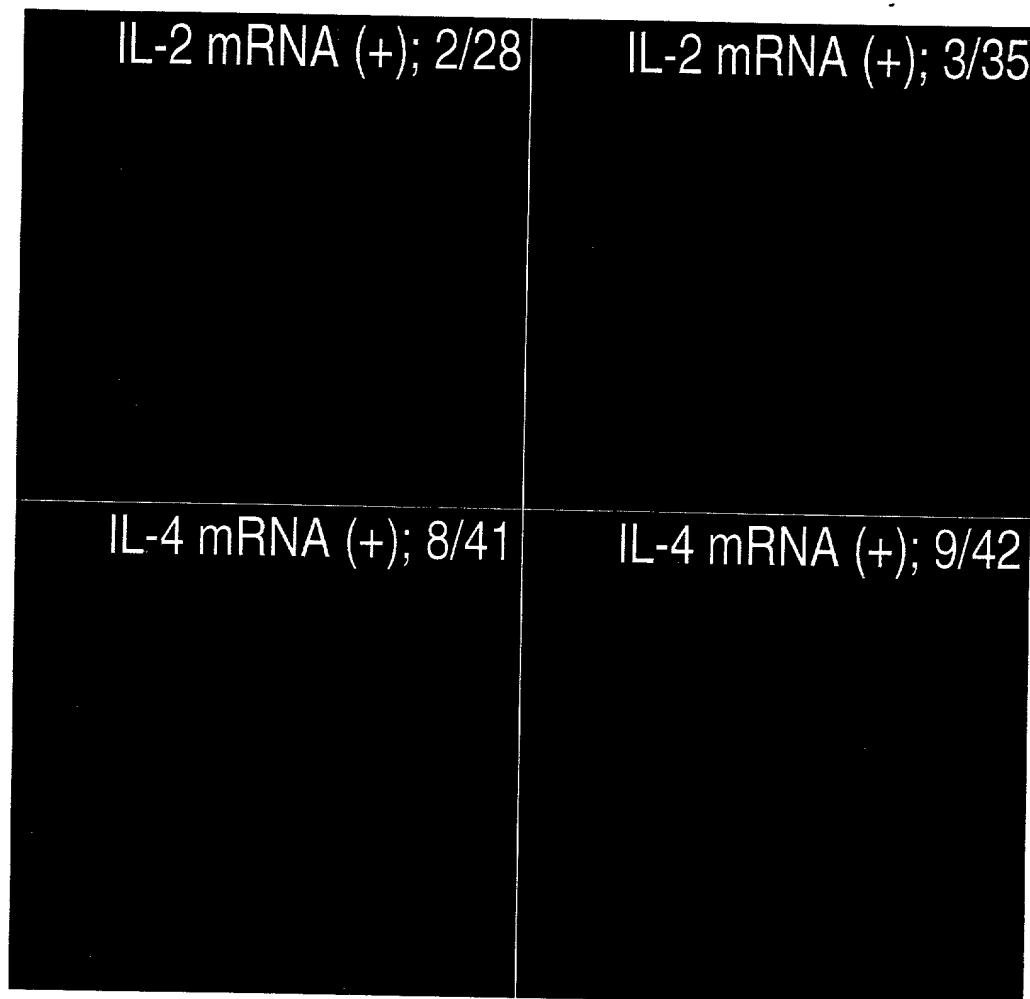
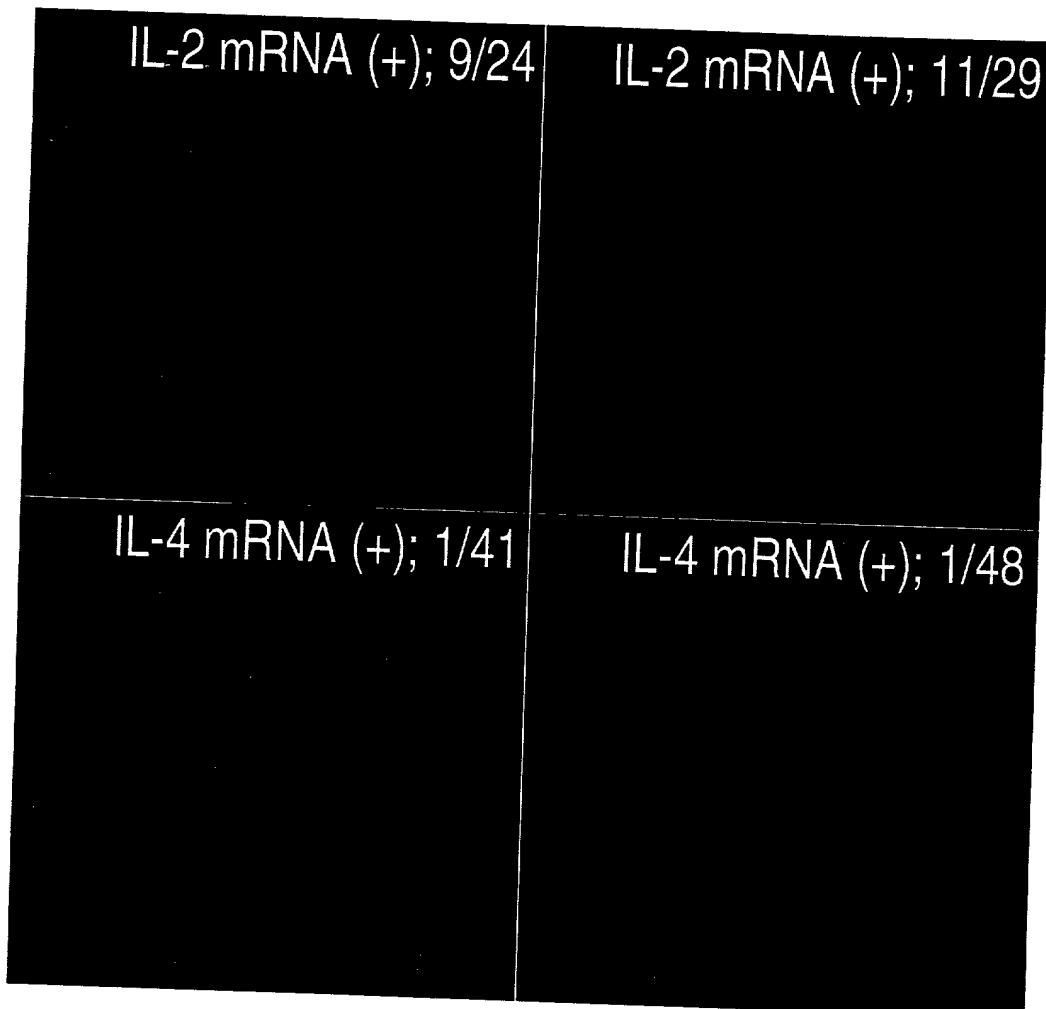


Fig. 91

IL-2 mRNA (+); 10/10	$\gamma$ -IF mRNA (+); 9/9	TNF- $\beta$ mRNA (+); 9/9
IL-4 mRNA (+); 0/9	IL-5 mRNA (+); 0/8	IL-10 mRNA (+); 0/9

**Fig.92**



*Fig. 93*

IL-2 mRNA (+); 0/7	$\gamma$ -IF mRNA (+); 0/8	TNF- $\beta$ mRNA (+); 0/8	IL-10 mRNA (+); 0/9
IL-4 mRNA (+); 9/9	IL-5 mRNA (+); 10/10	IL-10 mRNA (+); 9/9	

Fig.94

